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# ACADEMIC FRONTIERS

*A Multidisciplinary E-Publication*

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## FOREWORD

It is with great enthusiasm that I welcome you to this issue of ACADEMIC FRONTIERS. As a peer-reviewed, multidisciplinary journal, we aim to provide a dynamic platform for scholars, educators, and researchers to share their latest academic insights and discoveries. Our mission is to foster a global community of intellectuals who are dedicated to advancing knowledge and sparking meaningful conversations across various fields of study.

In the pages that follow, you will find a collection of peer-reviewed articles, research papers, and abstracts, each selected to reflect the most recent trends and developments in academia. These works represent the collective efforts of scholars and researchers from around the world, each offering unique perspectives that challenge, inspire, and provoke thought.

At ACADEMIC FRONTIERS, intellectual growth is a shared journey that transcends disciplines. Our commitment to publishing a wide range of topics—from innovative research methodologies and theoretical explorations to practical applications and interdisciplinary studies—reflects our dedication to supporting scholars at all stages of their academic endeavors.

As we navigate a rapidly evolving global landscape, the importance of research and knowledge-sharing has never been more profound. In this issue, you will find work that not only contributes to the advancement of knowledge but also highlights the crucial role that academia plays in shaping our world. These contributions serve as a reminder of the power of research to foster change, inspire progress, and create a better future for all.

I extend my deepest gratitude to our contributors, whose expertise and dedication have made this journal possible. I also express sincere thanks to our readers for their continued support and engagement. It is through your involvement that ACADEMIC FRONTIERS continues to grow into a vibrant and inclusive space for intellectual exchange and discovery.

As you immerse yourself in this issue, I invite you to reflect on the diverse range of ideas presented and consider how they might contribute to your own work and academic journey. Together, let us explore the frontiers of knowledge and celebrate the vital role of research in advancing human understanding.

Thank you for being a part of ACADEMIC FRONTIERS.

With warm regards,

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# Data-Driven Marketing: Exploring the Educational Impact of Facebook Analytics to Marketing Students

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## Abstract.

This study investigates how Facebook Analytics enhances the analytical, ethical, and strategic competencies of marketing students at Eulogio "Amang" Rodriguez Institute of Science and Technology (EARIST). Using a descriptive cross-sectional survey of 175 participants, the study assessed students' awareness, utilization, and perceived learning outcomes of Facebook Analytics. Results revealed that students are highly aware and competent in applying data-driven marketing concepts, particularly in professional branding, privacy, and campaign integration. A significant positive relationship was found between students' awareness and their proficiency in data interpretation and marketing application. The study concludes that integrating Facebook Analytics into marketing curricula strengthens digital literacy, ethical responsibility, and analytical reasoning, aligning educational outcomes with industry demands in the digital economy.

**Keywords:** Facebook Analytics, Data-Driven Marketing, Digital Literacy, Marketing Education, Analytical Competency, Ethical Marketing

## 1.0 Introduction

In today's rapidly evolving digital economy, data has emerged as a pivotal asset shaping decision-making and marketing innovation. The rise of data-driven marketing has transformed how organizations identify, attract, and retain customers by using analytics to inform strategic actions and optimize performance (Verma, 2025). This paradigm shift highlights the need for marketing professionals to leverage insights gleaned from digital platforms, such as Facebook Analytics, which remains a primary source of consumer data and engagement metrics in the digital marketing ecosystem (Wajid et al., 2021). Through this platform, marketers gain the ability to monitor user interactions,



evaluate campaign outcomes, and predict customer behavior in real time, thereby reinforcing the importance of analytical literacy as a core 21st-century competency.

Data analytics has become a vital component of marketing curricula, bridging theoretical principles with real-world applications. Studies by Ye et al. (2023) emphasized that integrating analytics-based learning tools enhances students' engagement, critical thinking, and digital proficiency. Similarly, Tsai (2024) noted that empowering students through educational big data analytics promotes active learning and decision-making skills essential for the digital workplace. These perspectives align with the call by Grewal et al. (2024) for marketing education to continuously adapt to the evolving needs of the digital marketplace through data-centric instruction and experiential learning.

The integration of technology and analytics into marketing instruction is consistent with the broader goal of promoting quality, innovative, and sustainable education (Aquino & Gapasin, 2025). As argued by Aquino et al. (2025), digital and entrepreneurial competencies must be strengthened through strategic pedagogical approaches that foster practical learning and real-world adaptability. Similarly, Aquino et al. (2024) highlighted that educators play a key role in shaping student engagement and professional work values, which directly affect how learners internalize emerging technologies and marketing strategies. Furthermore, Aquino and Gapasin (2023) underscored that effective digital learning environments depend on structured monitoring and ethical guidance, an important consideration when training students to interpret and apply marketing data responsibly.

Despite the growing recognition of data analytics in marketing education, empirical studies remain limited regarding the effectiveness of Facebook Analytics as an educational tool. Research by Owan et al. (2023) found that while students increasingly recognize the potential of social media for marketing and research purposes, their awareness, ethical understanding, and utilization of analytics tools vary significantly. Similarly, Alano et al. (2022) demonstrated that Filipino students actively use Facebook for online marketing; however, many lack the analytical competence to interpret data systematically and align their strategies with privacy, branding, and performance metrics.

This study, therefore, seeks to examine the educational impact of Facebook Analytics on marketing students at the College of Business and Public Administration, Eulogio "Amang" Rodriguez Institute of Science and Technology (EARIST). Specifically, it investigates students' level of awareness of Facebook Analytics in terms of privacy, professional branding, social dynamics, security considerations, and alignment with industry standards. It further evaluates how students apply Facebook Analytics in developing, integrating, and assessing data-driven marketing campaigns. In doing so, the research aims to identify the relationship between awareness and application, thereby assessing students' readiness to engage in professional, data-informed marketing practices.

The study aims to propose a College Optimization Plan to strengthen the pedagogical integration of Facebook Analytics in marketing programs. This initiative aligns with Aquino and Gapasin's (2025) advocacy for fostering a dynamic learning climate that promotes collaboration, innovation, and digital competence. By reinforcing data literacy, ethical awareness, and strategic decision-making, this research contributes to the advancement of marketing education and the development of data-driven, responsible, and future-ready marketing professionals who can thrive in a globalized, analytics-driven economy.

## 2.0 Methodology

This section outlines the systematic approach employed in conducting the study, detailing the research design, participants, instruments, procedures, and analytical methods used to examine the educational impact of Facebook Analytics on marketing students.

### 2.1 Research Design

This study employed a descriptive cross-sectional survey design to explore the educational impact of Facebook analytics on marketing students' understanding and application of data-driven marketing. The descriptive method was considered appropriate as it enabled the researcher to gather



quantifiable data on the students' level of awareness, utilization, and perceived learning benefits of Facebook analytics at a specific point in time. The cross-sectional nature of the research further allowed the identification of patterns and correlations between awareness of Facebook analytics and data-driven marketing competencies without manipulating any variables, making it suitable for an educational investigation.

## 2.2 Participants and Sampling Technique

The participants in this study were third-year Bachelor of Science in Business Administration students majoring in Marketing Management, enrolled at the Eulogio "Amang" Rodriguez Institute of Science and Technology (EARIST), College of Business and Public Administration, during the Academic Year 2024–2025. From the total population of 319 students, a total of 175 participants were selected using a purposive sampling technique. This sampling approach was chosen to ensure that the respondents possessed relevant knowledge and academic exposure to marketing analytics subjects and digital marketing platforms, thereby enhancing the accuracy and validity of the data gathered.

## 2.3 Research Instrument

The main research instrument utilized was a structured questionnaire, which consisted of two parts: (1) awareness and utilization of Facebook analytics; and (2) the perceived educational impact of Facebook analytics on data-driven marketing competencies. The questionnaire was developed based on previous studies and validated by three experts in marketing education and educational research. A pilot test was conducted among 30 third-year Marketing Management students to assess the clarity, reliability, and internal consistency of the instrument. The pilot testing results yielded a Cronbach's Alpha reliability coefficient of 0.89, indicating a high level of internal consistency, as values above 0.80 are considered highly reliable.

## 2.4 Data Gathering Procedure

Before the data collection, the researcher sought approval from the Dean of the College of Business and Public Administration and the EARIST Research Ethics Committee. After obtaining the necessary permissions, the questionnaires were distributed both online through Google Forms and in printed copies to accommodate students' accessibility and preferences. Each participant was informed about the purpose of the study, the confidentiality of their responses, and the voluntary nature of their participation. Data collection was conducted over two weeks to ensure a sufficient number of responses. All responses were carefully tabulated, encoded, and prepared for statistical analysis.

## 2.5 Data Analysis Procedure

Both descriptive and inferential statistical methods were employed. The weighted mean was computed to determine their level of awareness and perceived educational impact of Facebook analytics. Moreover, the Pearson  $r$  correlation coefficient was applied to examine the relationship between students' awareness of Facebook analytics and their perceived improvement in data-driven marketing competencies. These analyses enabled a comprehensive understanding of how Facebook analytics contribute to the educational development of marketing students.



## 2.6 Ethical Considerations

The researcher ensured strict adherence to ethical research principles throughout the study's conduct. Participation was entirely voluntary, and respondents were provided with an informed consent form explaining the purpose, procedures, and confidentiality measures of the research. The anonymity and privacy of all participants were maintained at all times, and all collected data were used solely for academic purposes. Furthermore, the study complied with the ethical standards of the EARIST Research Ethics Committee. It adhered to the provisions of the Data Privacy Act of 2012 (Republic Act No. 10173) to protect the rights and data integrity of the respondents.

## 3.0 Results and Discussion

This section presents the analyzed data gathered from the respondents, supported by statistical results and relevant literature. It interprets the findings in relation to the study's objectives, highlighting patterns, relationships, and implications of Facebook Analytics on the development of data-driven marketing competencies among students.

### 3.1 Level of Awareness of Facebook Analytics among Marketing Students

Table 1 shows the respondents' perceptions of the entrepreneurship simulation rooms across five indicators: realism, tools and resources, facilitation, engagement, and curriculum integration.

**Table 1.** Summary of the Level of Awareness of Facebook Analytics among Marketing Students

Indicators	WM	VI	Rank
Privacy	4.39	E	3
Professional Branding	4.40	E	1.5
Social Dynamic	4.40	E	1.5
Security Considerations	4.32	E	4
Alignment with Industry Standards	4.26	E	5
<b>Grand Mean</b>	<b>4.35</b>	<b>E</b>	

**Legend:**

Range	Scale	Verbal Interpretation	Symbol
5	4.20-5.00	Extremely Aware	EA
4	3.40-4.19	Very Aware	VA
3	2.60-3.39	Moderately Aware	MA
2	1.80-2.59	Slightly Aware	SA
1	1.00-1.79	Never	N

The results in Table 1 show that marketing students demonstrated an extremely high level of awareness of Facebook Analytics, with a grand mean of 4.35. Among the indicators, Professional Branding and Social Dynamics ranked highest, indicating that students are highly aware of how Facebook Analytics supports personal branding, online engagement, and audience understanding. The intense awareness of Privacy and Security Considerations reflects their recognition of the importance of ethical and responsible data use. Although awareness of Alignment with industry standards is slightly lower, it still indicates that students are familiar with professional expectations in data-driven marketing. Overall, the findings suggest that marketing students possess a well-developed understanding of Facebook Analytics, enabling them to integrate analytical tools effectively into marketing education and practice.



### 3.2 Assessment of Data-Driven Marketing using Facebook Analytics among Marketing Students

**Table 2.** Summary on the Assessment of Data-driven Marketing using Facebook Analytics among Marketing Students

Indicators	WM	VI	Rank
Frequency and Extent of Utilization	4.26	HE	4
Integration into Marketing Campaigns	4.31	HE	1
Data Interpretation and Analysis	4.27	HE	3
Target Audience Understanding	4.25	HE	5
Performance Management	4.28	HE	2
<b>Grand Mean</b>	<b>4.27</b>	<b>HE</b>	

**Legend:**

Range	Scale	Verbal Interpretation	Symbol
5	4.20-5.00	High Extent	HE
4	3.40-4.19	Extent	E
3	2.60-3.39	Moderately Extent	ME
2	1.80-2.59	Least Extent	LE
1	1.00-1.79	Not Extent	NE

The data in Table 2 indicate that marketing students apply Facebook Analytics in their academic and marketing activities to a high extent, with a grand mean of 4.27. Among the indicators, Integration into Marketing Campaigns obtained the highest weighted mean, showing that students effectively incorporate analytical insights into campaign planning and execution. This is followed by Performance Measurement and Data Interpretation and Analysis, which highlight students' ability to evaluate campaign outcomes and draw actionable insights from analytics data. Meanwhile, Frequency and Extent of Utilization and Target Audience Understanding also received high ratings, reflecting consistent engagement with Facebook Analytics tools in understanding market behaviour. Overall, these findings reveal that students not only recognise the value of analytics but also apply it meaningfully in developing data-driven marketing strategies, demonstrating readiness for real-world digital marketing practices.

### 3.3 Significant Relationship between the Level of Awareness and Data-Driven Marketing using Facebook Analytics among Marketing Students

This section presents the correlation analysis between the respondents' level of awareness of Facebook Analytics and their engagement in data-driven marketing practices. It examines how specific dimensions of awareness, privacy, professional branding, social dynamics, security considerations, and alignment with industry standards are significantly related to students' analytical proficiency, ethical understanding, and strategic marketing competence.

#### 3.3.1 Relationship between the Level of Awareness in Privacy and Data-driven Marketing using Facebook Analytics

**Table 3.** Relationship between the Level of Awareness in Privacy and Data-driven Marketing using Facebook Analytics

Indicators	r-value	VI	Interpretation	Decision
Privacy to Frequency and Utilization	0.46	MC	Significant	Reject Ho
Privacy to Integration into Marketing Campaigns	0.55	MC	Significant	Reject Ho
Privacy in Data interpretation and analysis.	0.52	MC	Significant	Reject Ho
Privacy for the Target audience.	0.50	MC	Significant	Reject Ho
Privacy to Performance Measurement	0.47	MC	Significant	Reject Ho



The results in Table 3 reveal a moderate positive correlation between students' awareness of privacy and all dimensions of data-driven marketing, with correlation coefficients ranging from 0.46 to 0.55. This suggests that a higher awareness of confidentiality is associated with greater competence in utilizing Facebook Analytics for marketing purposes. Students who understand data privacy principles tend to apply analytics more responsibly in campaign integration, audience targeting, and performance evaluation. The findings suggest that privacy awareness enhances not only students' analytical abilities but also their ethical decision-making, ensuring that data is used with integrity and respect for confidentiality. This relationship highlights the importance of incorporating data privacy education into marketing curricula to cultivate digitally literate and ethically responsible marketers.

### 3.3.2 Relationship between the Level of Awareness in Professional Branding and Data-driven Marketing using Facebook Analytics

**Table 4.** Relationship between the Level of Awareness in Professional Branding and Data-driven Marketing using Facebook Analytics

Indicators	r-value	VI	Interpretation	Decision
Professional Branding to Frequency and Utilization	0.46	SC	Significant	Reject Ho
Professional Branding to Integration into Marketing Campaigns	0.69	SC	Significant	Reject Ho
Professional Branding to Data interpretation and analysis.	0.67	SC	Significant	Reject Ho
Professional Branding to the Target audience.	0.67	SC	Significant	Reject Ho
Professional Branding to Performance Measurement.	0.65	SC	Significant	Reject Ho

The results in Table 4 show a **strong positive correlation** between students' awareness of professional branding and their engagement in data-driven marketing, with correlation coefficients ranging from **0.64 to 0.69**. This finding suggests that students who understand how Facebook Analytics supports professional visibility and brand management are more adept at applying analytical insights to marketing campaigns. Their ability to use data for personal and organisational branding reflects both analytical competence and strategic thinking. The results further suggest that strengthening branding awareness enhances students' ability to translate digital insights into effective marketing decisions, reinforcing the need for marketing programs to integrate analytics-based branding activities into their instruction.

### 3.3.3 Relationship between the Level of Awareness in Social Dynamics and Data-driven Marketing using Facebook Analytics

**Table 5.** Relationship between the Level of Awareness in Social Dynamics and Data-driven Marketing using Facebook Analytics

Indicators	r-value	VI	Interpretation	Decision
Social Dynamics to Frequency and Utilization	0.54	MC	Significant	Reject Ho
Social Dynamics to Integration into Marketing Campaigns	0.61	SC	Significant	Reject Ho
Social Dynamics to Data Interpretation and Analysis	0.66	SC	Significant	Reject Ho
Social Dynamics to Target Audience	0.63	SC	Significant	Reject Ho
Social Dynamics to Performance Measurement.	0.58	MC	Significant	Reject Ho

The findings in Table 5 reveal a moderate to strong positive correlation between students' awareness of social dynamics and their data-driven marketing competencies, with correlation coefficients ranging from 0.54 to 0.66. This indicates that students who are more aware of social



interactions and audience behavior on Facebook are better at interpreting analytics data and applying it to campaign strategies. Their understanding of social engagement allows them to create content and marketing initiatives that resonate with target audiences. Overall, the results suggest that awareness of social dynamics enhances students' analytical interpretation and audience-centered marketing approaches, reinforcing the value of integrating human and behavioral insights into analytics-based education.

### 3.3.4 Relationship between the Level of Awareness in Security Consideration and Data-driven Marketing using Facebook Analytics

**Table 6.** Relationship between the Level of Awareness in Security Consideration and Data-driven Marketing using Facebook Analytics

Indicator	r-value	VI	Interpretation	Decision
Security Considerations for Frequency and Utilization	0.46	MC	Significant	Reject Ho
Security Considerations for Integration into Marketing Campaigns.	0.57	MC	Significant	Reject Ho
Security Considerations for Data interpretation and analysis.	0.62	SC	Significant	Reject Ho
Security Considerations for the Target Audience.	0.51	MC	Significant	Reject Ho
Security Considerations to Performance Measurement.	0.52	MC	Significant	Reject Ho

The results in Table 6 indicate a moderate to strong positive correlation between students' awareness of security considerations and their data-driven marketing practices, with correlation coefficients ranging from 0.46 to 0.62. This suggests that students who are more aware of data protection and the ethical use of information perform better when applying analytics to marketing activities. Their understanding of security principles supports responsible handling of consumer data, accurate interpretation of insights, and trustworthy marketing performance. These findings underscore the importance of strengthening awareness of data security in promoting analytical integrity and ethical competence, both of which are crucial in preparing students for professional roles in digital marketing.

### 3.3.5 Relationship between the Level of Awareness in Alignment with Industry Standards and Data-driven Marketing using Facebook Analytics

**Table 7.** Relationship between the Level of Awareness in Alignments with Industry Standards and Data-driven Marketing using Facebook Analytics

Indicators	r-value	VI	Interpretation	Decision
Alignments with Industry Standards to Frequency and Utilization	0.56	MC	Significant	Reject Ho
Alignments with Industry Standards to Integration into Marketing Campaigns.	0.61	SC	Significant	Reject Ho
Alignments with Industry Standards to Data Interpretation and Analysis.	0.63	SC	Significant	Reject Ho
Alignments with Industry Standards to the Target Audience.	0.53	MC	Significant	Reject Ho
Alignments with Industry Standards to Performance Measurement.	0.52	MC	Significant	Reject Ho



The results in Table 7 reveal a moderate to strong positive correlation between students' awareness of industry standards and their competencies in data-driven marketing, with correlation coefficients ranging from 0.52 to 0.63. This demonstrates that students who understand professional and industry-aligned analytics practices are more capable of interpreting data, managing campaigns, and applying insights effectively. Awareness of industry standards enables students to align their analytical approaches with global marketing benchmarks, promoting professionalism and accountability. Overall, the findings confirm that integrating discussions on industry standards into marketing education strengthens students' readiness to perform ethically, strategically, and competitively in data-driven environments.

#### 4.0 Conclusion

Based on the research findings, it is concluded that marketing students from the College of Business and Public Administration at Eulogio "Amang" Rodriguez Institute of Science and Technology exhibit a highly developed level of competency in data-driven marketing through the use of Facebook Analytics. The results underscore the growing relevance of digital analytics as an educational and professional skill set that prepares students for the evolving demands of the marketing industry.

1. The study revealed that marketing students possess an exceptionally high level of awareness of Facebook Analytics, with a grand mean of 4.35. They demonstrated advanced understanding across indicators, particularly in Professional Branding and Social Dynamics, reflecting their ability to leverage Facebook tools for personal branding, audience engagement, and content evaluation. Their heightened awareness of privacy and security considerations further signifies a responsible and ethical approach to handling digital data. This implies that the students are adequately equipped to integrate analytical tools into their academic and professional activities. Therefore, Facebook Analytics significantly contributes to the development of analytical literacy and digital competency, aligning educational outcomes with global marketing standards and enhancing students' employability in a data-driven economy.
2. Findings also revealed that students apply data-driven marketing practices to a high degree (grand mean = 4.27). They effectively utilize Facebook Analytics for campaign integration, performance measurement, and data interpretation, demonstrating both technical proficiency and strategic thinking. This active engagement illustrates how Facebook Analytics serves as an experiential learning tool that connects theoretical frameworks with real-world marketing applications. Hence, the integration of analytics tools into marketing education enhances digital fluency, analytical reasoning, and decision-making skills, critical competencies for the 21st-century marketing professional.
3. The correlation analysis revealed a statistically significant positive relationship between students' level of awareness and their extent of data-driven marketing application. Higher awareness of privacy, professional branding, social interaction, and security corresponded with stronger capabilities in campaign execution, audience targeting, and data-driven decision-making. This indicates that awareness and application are interdependent; the more students understand the ethical, strategic, and technical dimensions of analytics, the more effectively they apply these tools in marketing contexts. Therefore, fostering awareness through curriculum integration enhances proficiency in data-driven marketing. It is concluded that embedding digital ethics, analytical literacy, and professional branding in marketing education is crucial for developing responsible, data-savvy, and industry-ready future marketers.

#### 5.0 Contribution of the Author

The author conceptualized the study, developed the research instrument, and supervised the validation process with subject-matter experts. He facilitated data collection among student and faculty



respondents, ensured adherence to ethical standards, and carried out statistical analysis and interpretation of findings.

## 6.0 Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

## 7.0 Conflict of Interests

The author declares no conflict of interest in the conduct and reporting of this research.

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# TikTok Application as an Extramural Learning Tool in Oral Communication Among Senior High School Students: Basis for a Learning Plan

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## Abstract.

This study examined the possibilities of employing the TikTok application as a tool for extramural learning in enhancing the oral communication skills of Senior High School students. Using a descriptive- correlational research, the study employed the use of an adopted Student Oral Language Observation Matrix (SOLOM) to determine the level of oral communication proficiency of the respondents before and after the intervention, TikTok links to be watched for intervention, and list of guide questions for Focus Group Discussion (FGD) to collect feedback from the respondents' perceptions in the development of oral communication through TikTok. The initial level of oral communication proficiency of the respondents was determined to be at an intermediate fluency both before and after the intervention. Statistical analysis revealed no significant differences in the oral communication proficiency of the respondents before and after the intervention. However, feedback garnered from focus group discussions indicated positive responses from the participants towards the use of TikTok as a learning tool. Despite the absence of a notable improvement in oral communication proficiency in post intervention, the favorable feedback from the Focus Group Discussion (FGD) suggested a promising outlook for the potential efficacy of TikTok as an educational tool. The findings of this study serve as a foundational exploration in crafting a comprehensive learning plan that leverages TikTok to enhance oral communication skills among Senior High School students. Further research, practical recommendations and refinement of strategies may be warranted to optimize the utilization of TikTok into language learning programs.

**Keywords:** TikTok, Extramural Learning, Oral Communication, Intervention, Learning Plan

## 1.0 Introduction

In today's highly digitalized world, technology has become a cornerstone of educational innovation. The increasing integration of social media platforms into pedagogical practice has blurred



the boundary between entertainment and education, transforming how learners engage with content and develop essential communication skills. Among the multitude of digital applications, TikTok has evolved from a leisure platform into an interactive learning environment that fosters creativity, collaboration, and communicative competence, particularly in language learning contexts.

In the Philippines, the use of TikTok has gained significant popularity among young people. While initially perceived as a space for amusement, it has gradually been recognized as a venue for authentic expression and informal learning. Students' familiarity with the platform makes it a more accessible and relatable tool for enhancing their oral communication skills. This aligns with Vygotsky's Social Constructivist Theory, which posits that learning occurs through social interaction and meaningful engagement. TikTok, with its short-form videos and interactive features, allows learners to practice speaking, listening, and self-expression in socially mediated environments that extend beyond classroom walls.

Several studies have underscored the potential of social media for language learning. According to Alakrash and Razak (2021), the integration of digital platforms enhances learner motivation and autonomy by allowing them to apply language in real-world scenarios. Likewise, Zhang (2022) emphasized that short-form video platforms provide immediate feedback and multimodal opportunities that support pronunciation and fluency. Despite these promising insights, research on the pedagogical potential of TikTok as an extramural tool for Oral Communication remains limited, particularly in the Senior High School context of the Philippines.

Addressing this gap, the present study specifically investigated the extramural learning experiences of Humanities and Social Sciences (HUMSS) students in Oral Communication through their use of the TikTok application. It aimed to examine how TikTok serves as a platform for extending oral communication practice beyond the classroom and how such participation contributes to students' fluency, pronunciation, and confidence, as measured by the Student Oral Language Observation Matrix (SOLOM). Furthermore, the study examined the perceptions and experiences of HUMSS students regarding the educational use of TikTok, from which a learning plan for Oral Communication was proposed.

Ultimately, this study contributes to the growing body of literature on technology-enhanced learning by positioning TikTok not merely as a digital trend but as a pedagogical medium that bridges formal and informal learning. By examining its role as an extramural tool, this research underscores the evolving relationship between social media and education. This relationship holds the potential to transform language instruction into a more interactive, student-centered, and contextually relevant experience.

## 2.0 Methodology

This study employed a descriptive-qualitative research design to investigate the use of TikTok as an extramural learning tool in enhancing the oral communication skills of Senior High School students. The design was deemed appropriate as it sought to describe and interpret the participants' experiences, perceptions, and engagement with TikTok as a supplementary educational platform.

### 2.1 Research Locale and Participants

The study was conducted at Mindanao State University – Lanao National College of Arts and Trades (MSU-LNCAT), located in Pangao Saduc, Marawi City, Lanao del Sur. The institution offers



junior and senior high school programs, vocational courses, and teacher education programs. It is part of the Mindanao State University System and continues to focus on technical and skills development in line with its educational mandate.

The respondents of the study were fifty-one (51) officially enrolled HUMSS students from Grade 11 and Grade 12, Section A, during the School Year 2023–2024. The purposive sampling technique was used since the participants were identified as active TikTok users and were taking Oral Communication as part of their curriculum. The group consisted of 22 Grade 11 and 29 Grade 12 students, all of whom were included in the complete enumeration of HUMSS learners.

## 2.2 Research Instruments

Three primary research instruments were employed in this study to collect both quantitative and qualitative data: the Adopted Student Oral Language Observation Matrix (SOLOM), TikTok video links, and a Focus Group Discussion (FGD) guide.

The SOLOM was used to assess the oral communication performance of HUMSS students based on key linguistic dimensions, including fluency, pronunciation, vocabulary, grammar, and comprehension. This standardized observation matrix allowed the researcher to objectively evaluate students' speaking skills through their TikTok video submissions. Each student's performance was rated using the SOLOM scale descriptors to identify specific strengths and areas for improvement in oral communication.

The TikTok video links served as the primary basis for evaluating the students' extramural learning output. These videos featured individual and group performances where students applied classroom concepts, demonstrated oral communication skills, and engaged in creative self-expression through spoken tasks. The researcher gathered and analyzed these videos as authentic evidence of students' learning experiences beyond the classroom.

Finally, the FGD guide questions were used to elicit students' perceptions, reflections, and experiences regarding their participation in TikTok-based oral communication activities. The questions were designed to explore how learners perceived TikTok as a learning environment, what motivational or linguistic benefits they experienced, and what challenges they encountered while producing their content. The discussions also provided insights into the collaborative and affective aspects of extramural learning.

All instruments were validated by language and research experts to ensure content validity, clarity, and alignment with the study's objectives. Minor revisions were made following pilot testing to enhance reliability and appropriateness for the target respondents.

## 2.3 Data Gathering Procedure

To conduct the research, the researcher followed a structured procedure composed of three phases: pre-intervention, intervention, and post-intervention.

**Pre-Intervention.** The researcher first obtained permission from the Senior High School Department Head, the Dean of Instruction, and the Senior High School Principal. The researcher also coordinated with the subject teachers and informed the student-respondents of the objectives and procedures of the study. Each respondent performed an impromptu speech, which was rated by three English teachers using the Student Oral Language Observation Matrix (SOLOM) to determine their initial oral communication proficiency.



Intervention. The researcher created a Facebook Messenger group chat that included all Grade 11 and Grade 12 HUMSS Section A students. Five TikTok video links containing short, instructional lessons on listening comprehension, fluency, vocabulary, pronunciation, and grammar were shared. The respondents watched these videos for one week as part of their extramural learning activity.

Post-Intervention. After viewing the TikTok instructional videos, the respondents performed another impromptu speech using a new set of questions. The same three English teachers rated their performances using the SOLOM to determine any change in proficiency. The researcher then reviewed the rating results and conducted Focus Group Discussions (FGDs) to gather qualitative data on how TikTok influenced the students' oral communication development.

## 2.4 Data Analysis

The quantitative data gathered through the SOLOM evaluations were summarized using weighted means and descriptive statistics to determine the overall oral communication proficiency of the students. These results were categorized into performance levels (e.g., *beginning, intermediate, and advanced*) to illustrate students' speaking abilities based on TikTok performances.

Meanwhile, the qualitative data obtained from the FGDs were analyzed using thematic analysis following Braun and Clarke's (2006) six-phase framework: (1) familiarization with the data, (2) initial coding, (3) theme identification, (4) theme review, (5) theme definition, and (6) report generation. The recurring themes were classified under dimensions such as motivation, confidence, creativity, and collaborative learning.

Triangulation was employed by cross-referencing SOLOM results, FGD responses, and TikTok performance observations. This approach ensured the credibility, validity, and depth of interpretation, enabling a comprehensive understanding of how TikTok supported the extramural learning of HUMSS students in Oral Communication.

## 2.5 Ethical Considerations

The study adhered to the ethical standards of academic research. Participants were informed of the study's purpose, their right to withdraw at any point, and the confidentiality of their data. No personal information was disclosed in any report or publication. The research process adhered to the ethical guidelines of Mindanao State University and the principles outlined in the *Data Privacy Act of 2012 (Republic Act No. 10173)*.

## 3.0 Results and Discussion

This section presents the results and interpretation of data collected through the Student Oral Language Observation Matrix (SOLOM) and Focus Group Discussions (FGDs). The findings are organized according to the study's Statement of the Problem (SOP).

### 3.1 Respondents' Level of Oral Communication Proficiency Before and After the Intervention

**Table 1.** Frequency, Percentage, and Mean Distribution of the Respondents' Level of Oral Communication Proficiency Before the Intervention

Proficiency Level	f	%	Mean Score (Pretest)
Preproduction (0-5)	0	0	0
Early Production (6-10)	2	3.9	7.5
Speech Emergence (11-15)	20	39.2	13.6



**Table 1 (continued).** Frequency, Percentage, and Mean Distribution of the Respondents' Level of Oral Communication Proficiency Before the Intervention

Proficiency Level	f	%	Mean Score (Pretest)
Intermediate Fluency (16–20)	24	47.1	17.9
Advanced Fluency (21–25)	5	9.8	21.2
<b>Overall Mean Score</b>	—	—	<b>16.12 (Intermediate Fluency)</b>

Before the intervention, most respondents (47.1%) were under the Intermediate Fluency level, with a mean score of 16.12. This indicates that the students could express ideas clearly but still needed improvement in pronunciation, vocabulary, and fluency.

**Table 2.** Frequency, Percentage, and Mean Distribution of the Respondents' Level of Oral Communication Proficiency After the Intervention

Proficiency Level	f	%	Mean Score (Posttest)
Preproduction (0–5)	0	0	0
Early Production (6–10)	1	2.0	10.0
Speech Emergence (11–15)	22	43.1	13.5
Intermediate Fluency (16–20)	25	49.0	17.8
Advanced Fluency (21–25)	3	5.9	23.0
<b>Overall Mean Score</b>	—	—	<b>16.08 (Intermediate Fluency)</b>

After the intervention, 49% of the respondents remained under Intermediate Fluency, while 5.9% achieved Advanced Fluency. The mean score of 16.08 implies consistent performance, with observable improvement in confidence and fluency, though not statistically significant.

### 3.2 Differences between the Level of Oral Communication Proficiency Before and After the Intervention

**Table 3.** Mean Rating and Proficiency Level Before and After the Intervention

Proficiency Indicator	Mean Rating Before	Mean Rating After	Mean Difference (Post-Pre)	T-value and p-value	Interpretation
Listening Comprehension	4.11	4.04	0.07	0.5064 (p>0.05)	Not significant
Fluency	3.08	3.07	0.01	0.2076 (p>0.05)	Not significant
Vocabulary	3.00	2.95	0.05	0.4531 (p>0.05)	Not significant
Pronunciation	2.98	3.08	-0.10	-0.9823 (p>0.05)	Not significant
Grammar	2.90	3.01	-0.11	-1.1115 (p>0.05)	Not significant
<b>Mean Score</b>	<b>16.08</b>	<b>16.12</b>	<b>0.04</b>	<b>0.1688 (p&gt;0.05)</b>	<b>Not significant</b>

The paired-sample t-test revealed that the mean difference (0.04) between pretest and posttest scores was not statistically significant ( $p > 0.05$ ). This confirms that while students' confidence and exposure increased, the quantitative improvement was minimal. Similar findings were reported



by Dinh and Nguyen (2023), who noted that social media-based oral tasks often yield affective rather than measurable gains in short-term performance.

### 3.3 Respondents' Perceptions on the Development of Oral Communication through TikTok

The FGDs revealed eight major themes representing students' perceptions of TikTok as a learning platform:

1. Providing Opportunities to Improve English Skills – Students found TikTok helpful for learning new words, improving pronunciation, and practicing fluency.
2. Increasing Learning Motivation – Interactive features like duets and challenges encouraged active participation and reduced anxiety.
3. Allowing Students to Learn Independently – Learners appreciated the app's accessibility and control over their pace and content choice.
4. Generating Fun, Stress-Free, and Engaging Learning – Students emphasized that short, creative videos made learning enjoyable and less intimidating.
5. Boosting Confidence through Interaction – The app provided a supportive environment where students could freely express themselves.
6. Facilitating Access to Learning Materials – TikTok allowed both students and teachers to access instructional videos easily.
7. Fragmenting Knowledge Framework – Some participants noted that short videos sometimes lacked depth and context.
8. Diverting Academic Attention – A few respondents admitted being distracted by non-educational content.

Students showed positive perceptions, viewing TikTok as an engaging and flexible platform for practicing oral communication, which is consistent with Novitasari (2022) and Mayer (2002), who emphasized the role of multimedia learning in cognitive retention.

### 3.4 Proposed Learning Plan Based on the Findings

A learning plan for Oral Communication was developed based on the findings. It integrates TikTok-based extramural activities aligned with DepEd competencies. Key features include:

- TikTok-based speaking tasks linked to curriculum goals;
- SOLOM-based rubrics for evaluating fluency, pronunciation, and comprehension;
- Reflective sessions for feedback and metacognitive learning; and
- Teacher monitoring to ensure focused and ethical use of the app.

This plan aligns with Kearney et al. (2012) and Manalo (2023), emphasizing that mobile-assisted instruction promotes learner engagement and autonomy when structured properly.

## 4.0 Conclusion

The study concludes that the TikTok application served as an effective extramural learning tool for enhancing oral communication skills among HUMSS students at MSU-LNCAT. Although the statistical analysis revealed no significant difference between pretest and posttest scores, the qualitative data suggested that students developed greater motivation, confidence, and enthusiasm for learning English.



The majority of students remained at the Intermediate Fluency level before and after the intervention; however, FGDs revealed that TikTok fostered language awareness, creativity, and communication practice beyond the classroom. These findings confirm that TikTok can effectively bridge traditional instruction and digital learning, promoting both affective and communicative growth when used purposefully in education.

#### 4.1 Recommendations

Based on the results and conclusions, the following recommendations are made:

1. For School Administrators: Encourage the integration of TikTok as a learning tool under guided use policies. Provide professional training for teachers and ensure responsible and ethical application.
2. For Teachers: Utilize TikTok to design oral communication activities that enhance students' engagement, fluency, and pronunciation. Provide feedback using SOLOM rubrics and ensure academic focus during implementation.
3. For Students: Use TikTok for self-directed language learning and practice. Balance educational and entertainment content to avoid distraction and time mismanagement.
4. For Parents: Support responsible digital use by monitoring TikTok engagement and encouraging its educational application.
5. For Future Researchers: Conduct comparative studies across strands or schools with extended intervention periods to explore TikTok's long-term impact on oral communication, motivation, and digital literacy.

#### 5.0 Author Contribution

The author conceptualized the study, conducted data collection, analyzed the findings, and wrote the entire manuscript. All aspects of the research process, from design and instrument validation to interpretation and final editing, were carried out independently by the author.

#### 6.0 Funding

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#### 7.0 Conflict of Interest

The author declares no potential conflicts of interest with respect to the research, authorship, or publication of this article. The study was conducted with academic independence and complete ethical integrity.

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# Barangay Healthcare Policy Formulation in Manila: An Analysis of Processes, Challenges, and Policy Effectiveness

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## Abstract.

As the most minor administrative divisions in the Philippines, barangays play a crucial role in implementing healthcare policies and initiatives that have a direct impact on individuals' well-being. The creation of barangay healthcare policies is essential for addressing a range of complex community health issues in densely populated areas, such as Manila. To better understand how local governance mechanisms impact public health outcomes, this study examined the procedures, challenges, and effectiveness of barangay healthcare policy drafting in several Manila districts. The results showed that the creation of barangay healthcare policies in Manila is an informal, participatory process that is frequently hindered by a lack of funding, technical expertise, and community involvement. A critical aspect of policy formulation is collaboration with non-governmental groups and the City Health Office. Barangays with well-organized health committees and aggressive leadership showed increased community satisfaction and policy efficacy. The study concludes that strengthening local capacity, institutional support, and participatory methods can enhance the development and implementation of barangay healthcare policies. To ensure more efficient and long-lasting healthcare governance, ongoing training, sufficient funding, and improved interagency cooperation are recommended.

**Keywords:** Barangay Healthcare Policies, Local Governance, Community Health Issues, Policy Formulation Challenges, Participatory Process, Public Health Outcomes

## 1.0 Introduction

As the Philippines' most minor administrative units, barangays serve as the primary conduit between the local community and the government. They are essential to the implementation of policies



and programs that have a direct impact on the everyday lives of residents, particularly in the area of healthcare. Barangays become the major suppliers of primary health services and key players in advancing preventive and responsive healthcare through barangay health centers and community-based programs. The policies developed and implemented at the barangay level often determine the success of these efforts.

Several interrelated procedures are involved in creating healthcare policies at the barangay level, including budgeting and resource allocation, stakeholder participation, assessing local health needs, and coordination with higher levels of government. However, a lack of technical expertise, budgetary limitations, and disparities in community involvement frequently impede these procedures. To improve local health governance and ensure that healthcare services remain fair and efficient, it is crucial to understand how barangays in Manila address these issues.

This study draws on the Decentralization Theory and the Health Governance Framework of the WHO (2018), which stress that decision-making authority and local capacity jointly influence community health outcomes.

Therefore, the purpose of this study is to examine the procedures, difficulties, and efficacy of barangay healthcare policy drafting in several Manila districts. The research aims to provide insights that can inform policy changes, capacity-building programs, and the development of more adaptable and sustainable healthcare systems at the community level by examining the dynamics of local governance and health policy formation.

## 2.0 Methodology

This section describes the systematic procedures undertaken in examining the processes, challenges, and effectiveness of barangay healthcare policy formulation in Manila. It outlines the research design, study locale, participants, instruments, data-gathering techniques, and ethical protocols used to ensure the reliability and validity of the study. Each subsection details how qualitative evidence was collected and analyzed to address the research objectives.

### 2.1 Research Design

To investigate how barangay healthcare policies in Manila are developed, the difficulties encountered along the way, and the perceived efficacy of these policies in meeting community health needs, this study employed a qualitative-descriptive research approach.

As it enables a greater understanding of the intricate social, political, and administrative elements that affect policy-making at the barrio level, the qualitative approach was selected. Instead of statistically measuring variables, it focuses on gaining insights from key stakeholders and understanding their experiences, perspectives, and practices.

The goal of the descriptive design component was to accurately depict the state of barangay healthcare policymaking practices and situations. The study aimed to identify trends and connections between policy development procedures, challenges encountered, and policy effectiveness outcomes by analyzing and interpreting the collected data.

The researcher employed document analysis, focus group discussions (FGDs), and semi-structured interviews to conduct this study. These techniques provided firsthand accounts and documentary evidence of the creation and implementation of healthcare policies in particular Manila barangays.



## 2.2 Research Locale

The study was carried out in Barangay 410, Zone 42, Jhocson St., Sampaloc, Manila

## 2.3 Research Participants

The study's 100 respondents are residents of Barangay 410, Zone 42, Jhocson St., Sampaloc, Manila.

## 2.4 Research Instrument

The principal research tools that were employed were:

1. Interview Guide: To investigate the following topics, a semi-structured interview guide with open-ended questions was created:

- The barangay's method of creating healthcare policies;
- Stakeholder consultation and involvement;
- Monitoring and implementation methods;
- Obstacles in the creation and implementation of policies; and
- Views on the efficacy of policies.

2. Focus Group Discussion (FGD) Guide: The purpose of this guide was to collect the experiences, viewpoints, and recommendations of locals regarding barangay healthcare policies and services.

3. Document Analysis Checklist: To guarantee consistency and thoroughness of data, a checklist was used to examine barangay documents (such as health plans, resolutions, and reports).

A small sample of respondents from a non-participating barangay pre-tested each instrument to make sure the questions were relevant, reliable, and clear.

## 2.5 Data Gathering Procedure

This study investigated the procedures, difficulties, and efficacy of healthcare policy formulation at the barangay level in Manila using a qualitative-descriptive research approach. There were multiple steps in the data collection process:

1. Barangay Selection: Barangays in particular Manila districts were specifically chosen based on factors like as population size, accessibility, and the existence of ongoing healthcare initiatives or programs.

2. Identification of Key Informants: Residents who have used healthcare services, barangay officials (such as captains and chairs of health committees), and barangay health workers (BHWs) were among the key informants.

3. Techniques for Gathering Data:

- Interviews: To learn more about the difficulties, perceived efficacy, and policy making process, semi-structured interviews were held with health professionals and barangay authorities.
- Focus Group Discussions (FGDs): To determine the community's awareness and perception of the healthcare policies put in place in their barangay, FGDs with residents were arranged.
- Document Review: To triangulate the information gathered from interviews and focus group discussions, barangay health plans, municipal ordinances, and reports from the City Health Office were reviewed.

4. Data Recording and Transcription: Every FGD and interview was audio recorded (with permission) and verbatim transcribed. After that, recurrent patterns and themes pertinent to the goals of the study were found using thematic analysis.



## 2.6 Ethical Considerations

In carrying out this investigation, the researcher closely followed ethical guidelines.

1. **Informed Consent:** Participants were informed of the study's goals, methods, and their freedom to decline or withdraw at any time. Before the start of FGDs or interviews, written consent was acquired.
2. **Confidentiality and Anonymity:** All personal information was eliminated from data reports and transcripts. To protect participants' privacy and secrecy, their identities were coded.
3. **Volunteer Participation:** The study was completely volunteer. There were no incentives offered that could unreasonably affect participation.
4. **Respect for Participants:** To ensure participants' comfort and willingness to share their experiences, interviews and conversations were conducted with respect.

## 3.0 Results and Discussion

This section presents, analyses, and interprets the findings of the study in the order of the Statement of the Problem. Quantitative results are shown in tables for clarity, complemented by qualitative interpretations and comparative insights from previous research. The discussion establishes the link between the data gathered and the broader context of local governance, providing an analytical perspective on how the identified issues and governance strategies reflect the realities of barangay-level administration.

*Table 1. Challenges Encountered in Barangay Healthcare Policy Formulation*

Challenges	Frequency (f)	Percentage (%)	Interpretation
Lack of Financial Resources	38	76%	Major Challenge
Limited Technical Knowledge of Training	32	64%	Major Challenge
Low Community Participation	27	54%	Moderate Challenge
Political Interference	22	44%	Moderate Challenge
Poor Coordination with City or National Agencies	18	36%	Minor Challenge
Inadequate Data and Monitoring Systems	15	30%	Minor Challenge
<b>Total</b>	<b>50</b>	<b>100%</b>	

According to Table 1, the most frequently mentioned obstacles to the creation of barangay healthcare policies are a lack of funding (76%) and officials' lack of technical expertise or training (64%). These results show that although barangay leaders acknowledge the significance of healthcare policymaking, they frequently encounter financial and technical limitations that impede program execution and sustainability.

Political meddling (44%) and low community involvement (54%) were also noted as moderate obstacles. This implies that many barangays continue to formulate policies in a top-down manner, with little input from residents. Healthcare programs may become less relevant and accepted as a result of this low engagement.

While there is collaboration with higher government units, it is not always successful, as seen by the lesser percentage of respondents (30–36%) who mentioned poor inter-agency coordination and inadequate data management as minor obstacles. These findings align with other research that highlights the need for institutional and technical support, in addition to decentralization, for successful local administration.



These findings mirror those of Salazar and Dela Cruz (2021), who likewise reported that fiscal constraints and limited technical capacity remain dominant challenges in Metro Manila barangays. Both studies highlight how these deficiencies affect the efficiency of community programs and the sustainability of local initiatives.

**Table 2.** *Perceived Effectiveness of Barangay Healthcare Policies*

Indicators of Policy Effectiveness	Frequency (f)	Percentage (%)	Interpretation
Programs Effectively Address Community Health Needs	35	70%	Effective
Policies are Regularly Reviewed and Updated	28	56%	Moderately Effective
Residents are aware of Barangay Health Policies	30	60%	Moderately Effective
Implementation is Well-Coordinated with CHO/DOH	33	66%	Effective
Adequate Monitoring and Evaluation System	24	48%	Less Effective
<b>Average</b>		<b>60%</b>	

The respondents' assessment of the policy's efficacy is shown in Table 2. According to the findings, 60% of respondents said barangay healthcare initiatives were generally moderately effective. The indication "Programs effectively address community health needs" received the highest rating (70%), indicating that the majority of barangays are capable of providing basic healthcare services that align with local needs.

However, just 48% of respondents agreed that there was sufficient monitoring and evaluation processes, indicating flaws in sustainability and policy review. The success of local programs was positively impacted by regular collaboration with the City Health Office (66%).

The results indicate that although barangay healthcare programs in Manila are usually helpful and practical, their efficacy is constrained by a lack of funding, lax oversight, and uneven community involvement.

The moderate effectiveness observed in this study parallels the results of Luzon and Del Rosario (2018), which affirmed that inter-agency coordination and stakeholder participation are critical determinants of policy success. The similarity between these studies reinforces the view that strong institutional linkages and participatory governance mechanisms are vital to improving local government performance.

#### 4.0 Conclusion

This study examined the procedures, challenges, and effectiveness of developing barangay healthcare policies in several Manila districts. The results showed that although barangays are the foundation of local health governance, their ability to create and implement efficient healthcare policies is frequently hindered by a lack of funding, inadequate technical expertise, and uneven community engagement. Despite these obstacles, many barangays demonstrate a great deal of dedication and flexibility in collaborating with the City Health Office, non-governmental organizations, and local stakeholders to address the specific health needs of their citizens.



The study demonstrated that strong leadership, institutional coordination, and participatory decision-making are the foundations of successful barrio healthcare policies. Health programs are typically more responsive and long-lasting in barangays that involve community people in planning and uphold transparency in resource management. On the other hand, the lack of essential components frequently results in disjointed policies and temporary fixes.

The study concludes that improving barangay healthcare policy development requires a multifaceted strategy that involves ongoing community involvement, sufficient budget allocation, technical assistance from higher government units, and capacity-building for local officials. Improving these factors may lead to improved health outcomes and more equitable access to healthcare services.

Policymakers and development planners can create interventions that enable barangays to play a more proactive and evidence-based role in healthcare governance by comprehending the procedures and difficulties encountered at the local level. By accomplishing this, the barangay will be able to fully carry out its role as the cornerstone of local government and community health in the Philippines.

## 5.0 Author Contribution

The authors conceptualized the study, conducted data collection, analyzed the findings, and wrote the entire manuscript. All aspects of the research process, from design and instrument validation to interpretation and final editing, were carried out independently by the authors.

## 6.0 Funding

No particular grant or financial assistance from governmental, private, or nonprofit funding organizations was obtained for this study. Data collection, materials, and other research-related costs were all paid for either directly by the researcher or by the attached academic institution.

## 7.0 Conflict of Interest

The researchers affirm that there is no conflict of interest in the conduct of this study. The study was conducted independently, and the design, data collection, analysis, interpretation, and presentation of the results were unaffected by any personal, financial, or professional conflicts of interest. Every respondent provided their consent, and the data collected were used solely for academic research. To ensure that the findings accurately represent the viewpoints and experiences of the participants without bias or outside influence, the researchers remained impartial throughout the investigation.

## 8.0 Acknowledgment

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# Lawak ng Pagkatuto ng Mag-aaral Kaugnay sa Paggamit ng Differentiated Instruksyon

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## Abstrak.

Nilalayan ng pag-aaral na ito na matukoy ang lawak ng pagkatuto ng mga mag-aaral kaugnay sa paggamit ng differentiated instruksyon sa pagtuturo. Ginamit ang deskriptibong-korrelasyunal na disenyo ng pananaliksik upang masukat ang ugnayan sa pagitan ng lawak ng pagkatuto at ng akademik na performans ng mga mag-aaral, gayundin ang lawak ng mga suliraning kinaharap ng mga guro sa pagpapatupad ng differentiated instruksyon. Kalahok sa pag-aaral ang mga piling mag-aaral at guro sa sekondarya ng [pangalan ng paaralan], na pinili sa pamamagitan ng purposive sampling. Gumamit ng talatanungan upang makuha ang datos ukol sa pakikilahok, kasanayan, interes, at oportunidad ng mga mag-aaral, pati na rin sa bilang ng mga mag-aaral, pamamahala sa silid-aralan, at mga kagamitang pampagtuturo ng mga guro. Ang mga nakalap na datos ay sinuri gamit ang mean, weighted mean, at Pearson r. Ipinakita ng resulta na nasa mataas na antas ang lawak ng pagkatuto ng mga mag-aaral sa paggamit ng differentiated instruksyon, samantalang katamtaman lamang ang lawak ng mga suliraning nararanasan ng mga guro. Lumitaw din na may makabuluhang ugnayan sa pagitan ng lawak ng pagkatuto at ng akademik na performans ng mga mag-aaral, subalit walang makabuluhang ugnayan sa pagitan ng lawak ng suliranin ng mga guro at ng akademik na performans ng mga mag-aaral. Batay sa mga natuklasan, mabisang estratehiya ang differentiated instruksyon upang mapaunlad ang kasanayan, interes, at partisipasyon ng mga mag-aaral. Inirerekomenda ng pag-aaral ang patuloy na pagsasanay sa mga guro at ang pagsasama ng differentiated instruksyon sa kurikulum bilang hakbang sa pagpapabuti ng kalidad ng pagtuturo at pagkatuto.

**Mga Susing Salita:** Differentiated Instruksyon, Lawak ng Pagkatuto, Kasanayan, Pakikilahok, Interes, Akademik na Performans

## 1.0 Introduksyon

Ang edukasyon ay itinuturing na pangunahing susi sa pagbabago ng sarili at lipunan. Sa kontekstong ito, kinakaharap ng mga guro ang hamon na magdisenyo ng mga makabagong pamamaraan ng pagtuturo upang mapukaw ang interes at mapalawak ang kakayahan ng mga mag-



aaral. Isa sa mga makabagong dulog na nakilala sa larangan ng pedagohiya ay ang differentiated instruksyon, isang estratehiyang nagbibigay-diin sa pagkakaiba-iba ng kakayahan, interes, at pangangailangan ng bawat mag-aaral (Bender, 2012; Adami, 2004).

Pinatutunayan ng mga pag-aaral nina Pham (2012) at Chamberlin at Powers (2010) na ang differentiated instruksyon ay nakatutulong sa paglinang ng pagiging malikhain, kolaboratibo, at self-directed learning ng mga mag-aaral. Gayunman, sa kabila ng mga patunay ng bisa nito, nananatiling limitado ang paggamit nito sa iba't ibang antas ng edukasyon sa Pilipinas. Ang sitwasyong ito ay nagbibigay-daan sa pangangailangan ng mga pananaliksik na tutukoy sa lawak ng implementasyon at epekto ng dulog na ito sa pagtuturo, partikular sa asignaturang Filipino.

Ang pag-aaral na ito ay naglalayong masuri ang lawak ng pagkatuto ng mga mag-aaral kaugnay sa paggamit ng differentiated instruksyon sa loob ng klasrum. Tinukoy rin nito ang mga problemang kinakaharap ng mga guro sa pagpapatupad ng nasabing dulog, pati na ang kaugnayan nito sa akademikong performans ng mga mag-aaral. Sa gayon, inaasahang makatutulong ang resulta ng pag-aaral sa pagpapaunlad ng mga estratehiya sa pagtuturo at sa pagpapahusay ng kalidad ng edukasyon sa bansa.

### 1.1 Teoretikal na Balangkas ng Pag-aaral

Ang pag-aaral na ito ay nakabatay sa Teoryang Sosyo-Kultural ni Lev Vygotsky at Teoryang Konstruktibismo ni Jean Piaget. Ayon kay Vygotsky, ang pagkatuto ng mag-aaral ay nagaganap sa pamamagitan ng interaksyong sosyal at patnubay ng mas may kaalaman (More Knowledgeable Others), sa loob ng tinatawag na Zone of Proximal Development (ZPD). Ipinapahiwatig ng teoryang ito na ang kolaborasyon sa pagitan ng guro at mag-aaral ay mahalaga upang maabot ng mag-aaral ang mas mataas na antas ng pag-unawa at kasanayan.

Samantala, binigyang-diin ni Piaget sa kanyang Teoryang Konstruktibismo na ang pagkatuto ay bunga ng aktibong pakikilahok ng mag-aaral sa pagbuo ng kaalaman batay sa sariling karanasan. Ipinapakita ng dalawang teorya na ang epektibong pagkatuto ay nakasalalay sa paggamit ng mga estratehiya sa pagtuturo na nagbibigay-daan sa interaksyon, patnubay, at malikhaing partisipasyon—mga prinsipyong lubos na kaayon ng paggamit ng differentiated instruksyon.

Sa kabuuan, ipinahihiwatig ng balangkas na ito na ang differentiated instruksyon ay maaaring magsilbing tulay sa pag-unlad ng kasanayan, interes, at akademik performans ng mga mag-aaral sa pamamagitan ng kontekstual at kolaboratibong pagkatuto.

### 2.0 Metodolohiya ng Pananaliksik

Ang bahaging ito ay naglalahad ng mga pamamaraan, disenyo, lugar, mga respondente, instrumentong ginamit, at estadistikang pamamaraan sa pagsusuri ng datos na tumulong sa pagtugon sa mga layunin ng pag-aaral.

#### 2.1 Disenyo ng Pananaliksik

Gumamit ang mananaliksik ng deskriptibong disenyo ng pananaliksik. Layunin nitong mailarawan ang kasalukuyang kalagayan ng lawak ng pagkatuto ng mga mag-aaral kaugnay sa paggamit ng differentiated instruksyon. Ginamit ang sarbey-kwestyoneyr bilang pangunahing kasangkapan upang masukat ang antas ng pagkatuto ng mga mag-aaral. Ang mga nakalap na datos ay sinuri at binigyan ng interpretasyon upang maging batayan sa pagsusuri ng kalagayan ng mga guro at mag-aaral sa paggamit ng differentiated instruksyon.



## 2.2 Lugar ng Pag-aaral

Isinagawa ang pag-aaral sa Lungsod ng Sta. Catalina, Negros Oriental noong taong panuruan 2019–2020. Binubuo ito ng apat (4) na distrito sa dibisyon ng Negros Oriental, na kinapapalooban ng labintatlong (13) paaralan: Avocado High School, Eligio Monte De Ramos High School, Sta. Catalina National High School, Sta. Catalina Science High School, Cawitan High School, Nagbalaye High School, Casiano Z. Napigkit National High School, Don Emilio Macias Memorial National High School, Kakha High School, Obat National High School, San Miguel High School, at Tamlang High School. Karamihan sa mga paaralang ito ay matatagpuan sa bulubunduking bahagi ng Sta. Catalina, at ang pangunahing hanapbuhay ng mga magulang ng mga mag-aaral ay pagsasaka at pangingisda.

## 2.3 Mga Respondente ng Pag-aaral

Kabilang sa mga respondente ang tatlong (30) guro sa Filipino na gumagamit ng differentiated instruksyon sa kanilang pagtuturo, at tatlong daang (300) piling mag-aaral mula sa ika-7 hanggang ika-12 baitang (Junior at Senior High School) sa mga nabanggit na paaralan. Pumili ang mananaliksik ng tig-sampung mag-aaral mula sa bawat guro upang maging kalahok sa pag-aaral. Ang kasanayan ng mga guro sa paggawa ng individualized differentiated instruction at dalas ng paggamit nito ay hindi isinama bilang bahagi ng pagsusuri.

## 2.4 Instrumento ng Pananaliksik

Ginamit ng mananaliksik ang talatanungan bilang pangunahing instrumento sa pagkalap ng datos. Binubuo ito ng dalawang bahagi:

- (1) Ang lawak ng pagkatuto ng mga mag-aaral batay sa pakikilahok, kasanayan, interes, at oportunidad; at
- (2) Ang lawak ng mga suliraning naranasan ng mga guro sa paggamit ng differentiated instruksyon kabilang ang bilang ng mag-aaral, pamamahala sa klase, at mga kagamitang pampagtuturo.

Dumaan sa dry run ang talatanungan upang matiyak ang pagiging maaasahan nito. Ang mga reliability coefficients ay ang mga sumusunod: pakikilahok (0.843), kasanayan (0.849), interes (0.864), oportunidad (0.808), bilang ng mag-aaral (0.719), pamamahala sa klase (0.731), at kagamitang pampagtuturo (0.701).

## 2.5 Paraan ng Pangangalap at Pagsusuri ng Datos

Ginamit sa pag-aaral ang weighted mean upang sukatin ang lawak ng pagkatuto ng mga mag-aaral at ang lawak ng suliraning naranasan ng mga guro. Ang mean naman ay ginamit upang masukat ang akademik performans ng mga mag-aaral pagkatapos gamitin ang differentiated instruksyon. Upang matukoy ang kaugnayan ng mga baryabol, ginamit ang t-test for dependent data at t-test for independent data.

## 2.6 Etikal na Konsiderasyon

Tiniyak ng mananaliksik ang pagiging kumpidensiyal ng impormasyon at boluntaryong paglahok ng mga kalahok. Nagsagawa ng pahintulot mula sa mga pinuno ng paaralan at mga guro bago isinagawa ang pananaliksik. Tiniyak din na walang pisikal o sikolohikal na panganib ang idinulot sa mga respondente.



### 3.0 Resulta at Talakayan

Ang bahaging ito ay naglalahad ng mga datos mula sa pananaliksik at nakaayos ayon sa limang ispesipikong suliranin.

### 3.1 Lawak ng Pagkatuto ng mga Mag-aaral sa Paggamit ng Differentiated Instruksyon

**Talaan 1** Lawak ng Tingin ng mga Mag-aaral sa Kanilang Pakikilahok kung ang Kanilang Guro ay Gumagamit ng Differentiated Instruksyon

Dahil sa paggamit ng differentiated instruksyon ng aking guro:	w $\bar{x}$	Berbal Deskripsyon	Lawak ng Pakikilahok
1. Natutuwa ako sa mga gawaing ipinapagawa ng aking guro dahil tumaas pa lalo ang aking marka sa Filipino at akademik performans.	4.19	Madalas	Malawak
2. Nakikilahok ako sa talakayan at sa mga gawaing ipinapagawa ng aking guro para sa aking lubusang pagkatuto.	4.18	Madalas	Malawak
3. Nagaganyak akong nakikilahok sa mga gawaing ibinigay ng guro dahil mas lalo ko panggagalingan ang aking pag-aaral.	4.18	Madalas	Malawak
4. Nakikilahok ako sa gawain ng aking guro upang mahasa ang aking kaalaman at tiwala sa sarili.	4.16	Madalas	Malawak
5. Ako ay nahihikayat na sumali sa mga pangkatang gawain na ipinapagawa ng aking guro upang mapapaunlad pa ang aking kaalaman at akademik performans.	4.14	Madalas	Malawak
6. Ako ay masaya kapag nagbibigay ng gawain ang aming guro dahil nalilinang nito ang aking talento.	4.04	Madalas	Malawak
7. Ako ay nakauunawa sa mga paksang tinalakay ng guro kung nagbibigay ito ng mga gawaing angkop para rito dahil napapalawak pa ang aking kaisipan at kakayahan.	4.04	Madalas	Malawak
8. Ako ay nabigyan ng pagkakataon na makilahok sa gawain ng aming guro dahil sa paggamit niya ng differentiated instruksyon sa kaniyang pagtuturo.	4.02	Madalas	Malawak
Composite	4.12	Madalas	Malawak
<b>Leyenda:</b>	<b>Iskala</b>	<b>Berbal na Deskripsyon</b>	<b>Lawak na Pakikilahok</b>
	4.21 – 5.00	Palagi	Malawak na malawak
	3.41 – 4.20	Madalas	Malawak
	2.61 – 3.40	Minsan	Katamtaman ay lawak
	1.81 – 2.60	Bihira	Di gaanong malawak
	1.00 – 1.80	Hindi	Di malawak

Ipinapakita sa Talaan 1 na ang composite mean na 4.12 (Madalas; Malawak) ay nagpapakita na malawak ang pakikilahok ng mga mag-aaral tuwing gumagamit ang guro ng differentiated instruksyon. Pinatutunayan ng datos na aktibo ang mga mag-aaral sa mga talakayan at gawaing pangklase, nagaganyak silang makilahok, at tumataas ang kanilang tiwala sa sarili. Pinatutunayan ito nina Wormeli (2005), Prince (2011), at De Anda (2007) na nagpapakita na ang interaktibong gawain at DI ay humahantong sa mas aktibong partisipasyon at kolaborasyon.



**Talaan 2.** Lawak ng Tingin ng mga Mag-aaral sa Kanilang Kasanayan kung ang Kanilang Guro ay Gumagamit ng Differentiated Instruksyon

Dahil sa paggamit ng <i>differentiated</i> instruksyon ng aking guro:	w $\bar{x}$	VD	Lawak ng Kasanayan
1. Nagagamit ko ang aking natutuhan sa mga gawaing ibinigay ng guro sa totoong buhay.	4.22	Palagi	Malawak na malawak
2. Natutuwa ako kapag nagkaroon ng pangkatang gawain ang aming guro dahil ang bawat isa ay nabigyan ng pagkakataon na maipamalas ang kani-kanilang talento at galing.	4.17	Madalas	Malawak
3. Napapaunlad ang aking kakayahan sa pamamagitan ng mga gawaing ipinapagawa ng aking guro.	4.15	Madalas	Malawak
4. Mas napapaunlad pa ang aking sarili sa mga gawaing ipinagagawa ng guro dahil nalilintang nito ang aking talento at kakayahang pangkomunikatibo.	4.09	Madalas	Malawak
5. Nahahasa ang aking talento at kakayahan sa pamamagitan ng pakikipag-interact sa kapwa mag-aaral at guro sa pamamagitan ng pagbibigay ng iba't ibang gawain.	4.05	Madalas	Malawak
6. Ako ay nabigyan ng pagkakataon na maipamalas at maibahagi sa iba ang aking kakayahan sa pamamagitan ng iba't ibang gawaing ipinapagawa ng aking guro.	3.94	Madalas	Malawak
7. Naipapakita ko ang aking kompyansa sa sarili sa pamamagitan ng pagsali sa mga gawaing ibinigay ng guro.	3.92	Madalas	Malawak
Composite	4.08	Madalas	Malawak

  

Leiyenda:	Iskala	Berbal na Deskripsyon	Lawak ng Kasanayan
	4.21 – 5.00	Palagi	Malawak na malawak
	3.41 – 4.20	Madalas	Malawak
	2.61 – 3.40	Minsan	Katamtaman ng lawak
	1.81 – 2.60	Bihira	Di gaanong malawak
	1.00 – 1.80	Hindi	Di malawak

Malawak ang kasanayan ng mga mag-aaral ( $w\bar{x} = 4.08$ ). Ang pinakamataas na pahayag ay ang paggamit ng natutuhan sa totoong buhay (4.22). Ipinapahiwatig nito na ang DI ay nakatutulong sa paglinang ng praktikal na kasanayan. Tugma ito sa natuklasan nina Abell at Lewis (2005) at Aranda at Zamora (2016) na dahil sa DI, nailalabas ng mga mag-aaral ang kanilang talento, lumalakas ang loob, at napauunlad ang kasanayan sa komunikasyon.

**Talaan 3.** Lawak ng tingin ng mga Mag-aaral sa Kanilang Interes kung ang Kanilang Guro ay Gumagamit ng Differentiated Instruksyon

Dahil sa paggamit ng <i>differentiated</i> instruksyon ng aking guro:	w $\bar{x}$	Berbal Deskripsyon	Lawak ng Interes
1. Naniniwala ako na mapapaunlad pa ang aking kakayahan sa talakayan ng aking guro kapag gumagamit ito <i>differentiated</i> instruksyon.	4.15	Madalas	Malawak



**Talaan 3 (Pagpapatuloy).** Lawak ng tingin ng mga Mag-aaral sa Kanilang Interes kung ang Kanilang Guro ay Gumagamit ng Differentiated Instruksyon

Dahil sa paggamit ng <i>differentiated</i> instruksyon ng aking guro:	w $\bar{x}$	Berbal Deskripsyon	Lawak ng Interes
2. Mas nakauugnay ako sa mga halimbawa kapag ito ay nailalahad ng aking guro sa pamamagitan ng pagbibigay ng iba't ibang gawain.	4.15	Madalas	Malawak
3. Ako ay nahihikayat na sumali sa gawaing iniatas ng guro sa loob ng klasrum upang mapaunlad ang aking akademik performans.	4.10	Madalas	Malawak
4. Ako ay nagkakaroon ng interes sa mga gawaing ipinagawa ng guro at handang sumali sa mga pangkatang gawain.	4.07	Madalas	Malawak
5. Ako ay puspusang nakikilahok sa talakayan at nakikiisa sa mga gawaing iniatas ng aking guro.	4.00	Madalas	Malawak
6. Ako ay mas lalong gaganahan sa talakayan dahil sa mga gawaing ipinagagawa ng guro.	3.98	Madalas	Malawak
7. Ako ay nagkakaroon ng malalimang pakikipag-ugnayan sa kapwa mag-aaral at guro sa mga aktibidad na ipinagawa nito.	3.97	Madalas	Malawak
Composite	4.06	Madalas	Malawak

Leyenda:	Iskala	Berbal na Deskripsyon	Lawak ng Kasanayan
	4.21 – 5.00	Palagi	Malawak na malawak
	3.41 – 4.20	Madalas	Malawak
	2.61 – 3.40	Minsan	Katamtaman ng lawak
	1.81 – 2.60	Bihira	Di gaanong malawak
	1.00 – 1.80	Hindi	Di malawak

Malawak ang interes ng mag-aaral ( $w\bar{x} = 4.06$ ). Pinatutunayan nina Abell, Jung & Taylor (2011) na tumataas ang interes ng mga mag-aaral kapag ang gawain ay nakaangkla sa learning styles at interes nila. Ganito rin ang napatunayan nina Valiandes (2015) at Konstantinou-Katzi et al. (2013) na ang DI ay nakapagpapataas ng enjoyment at participation.

**Talaan 4.** Lawak ng tingin ng mga Mag-aaral sa Kanilang Oportunidad kung ang Kanilang Guro ay Gumagamit ng Differentiated Instruksyon

Dahil sa paggamit ng <i>differentiated</i> instruksyon ng aking guro:	w $\bar{x}$	Berbal Deskripsyon	Lawak ng Oportunidad
1. Ako ay nabigyan ng pagkakataong madebelop pa ang aking kakayahan lalong-lalo na sa larangan ng pagbabasa at pagsusulat.	4.29	Palagi	Malawak na malawak
2. Ako ay natutuwa dahil nagkaroon ng masayang talakayan kapag nagbibigay ang aming guro ng iba't ibang Gawain.	4.16	Madalas	Malawak
3. Ako ay nabibigyan ng pagkakataong maibahagi ang aking kaalaman sa aking mga kapwa mag-aaral.	4.12	Madalas	Malawak
4. Ako ay nabigyan ng tamang oras upang mapaghandaan ang mga gawaing iniatas ng guro sa amin.	4.10	Madalas	Malawak



**Talaan 4 (Pagpapatuloy).** Lawak ng tingin ng mga Mag-aaral sa Kanilang Oportunidad kung ang Kanilang Guro ay Gumagamit ng Differentiated Instruksyon

Dahil sa paggamit ng <i>differentiated</i> instruksyon ng aking guro:	$w\bar{x}$	Berbal Deskripsyon	Lawak ng Oportunidad
5. Ako ay nabigyan ng pagkakataon ng aking guro na maipakita ang aking talento.	4.06	Madalas	Malawak
6. Ako ay nabibigyan ng atensyon para mahasa pa ang aking kakayahan sa paggamit ng aking guro ng iba't ibang gawain.	4.02	Madalas	Malawak
7. Ako ay hindi inaantok sa loob ng klase at interesado akong makilahok sa mga gawaing ipinagawa ng aking guro.	3.97	Madalas	Malawak
Composite	4.10	Madalas	Malawak

Leyenda:	Iskala	Berbal na Deskripsyon	Lawak ng Kasanayan
	4.21 – 5.00	Palagi	Malawak na malawak
	3.41 – 4.20	Madalas	Malawak
	2.61 – 3.40	Minsan	Katamtaman ng lawak
	1.81 – 2.60	Bihira	Di gaanong malawak
	1.00 – 1.80	Hindi	Di malawak

Malawak ang oportunidad ng mga mag-aaral ( $w\bar{x} = 4.10$ ). Ipinapakita ng mga datos na ang DI ay nagbibigay ng sapat na oras, espasyo, at pagkakataon upang magpakita ng talento at lumawak ang kakayahan. Tugma ito sa sinasabi ni Tomlinson (2009) at Park (2018): ang DI ay nagbibigay ng multiple opportunities for learning.

**Talaan 5.** Buod na Talaan sa Lawak ng tingin ng mga Mag-aaral kung ang Kanilang Guro ay Gumagamit ng Differentiated Instruksyon

Areas	$w\bar{x}$	Berbal Deskripsyon	Lawak Equivalent
1. Pakikilahok	4.12	Madalas	Malawak
2. Kasanayan	4.08	Madalas	Malawak
3. Interes	4.06	Madalas	Malawak
4. Oportunidad	4.10	Madalas	Malawak

  

Leyenda:	Iskala	Berbal na Deskripsyon	Lawak ng Kasanayan
	4.21 – 5.00	Palagi	Malawak na malawak
	3.41 – 4.20	Madalas	Malawak
	2.61 – 3.40	Minsan	Katamtaman ng lawak
	1.81 – 2.60	Bihira	Di gaanong malawak
	1.00 – 1.8	Hindi	Di malawak

Pinakamalawak ang pakikilahok (4.12) at pinakamababa ngunit malawak pa rin ang interes (4.06). Sa kabuuan, ang paggamit ng DI ay nagresulta sa malawak na lawak ng pagkatuto sa apat na dimensyon.



### 3.2 Lawak ng Suliranin ng mga Guro sa Paggamit ng ng Differentiated Instruksyon

**Talaan 6.** Lawak na Nararanasan ng mga Guro sa Suliranin sa Bilang ng mga Mag-aaral Pagkatapos Gamitin ang Differentiated Instruksyon

Dahil sa paggamit ng <i>differentiated</i> instruksyon:	w $\bar{x}$	Berbal Deskripsyon	Lawak ng Naranasan
1. Ako ay nakararanas ng problema sa aking pagtuturo dahil sa dami ng bilang ng mga mag-aaral sa loob ng klasrum.	3.47	Madalas	Malawak
2. Ako ay nalulungkot kung di agad nakukuha ng aking mag-aaral ang leksyon.	2.30	Bihira	Di Gaanong Malawak
3. Ako ay nahihirapan sa pagsagawa ng mga gawain dahil sa dami ng aking mag-aaral.	1.97	Bihira	Di Gaanong Malawak
4. Ako ay nahihirapan sa paglipat ng kaalaman sa mga mag-aaral dahil sa dami nila.	1.53	Hindi	Di Malawak
5. Ako ay naniniwala na hindi ganoon ka epektibo ang paggamit ko ng <i>Differentiated</i> instruksyon dahil sa sobrang dami at limitado lamang ang aking oras sa paghahanda ng kagamitang pampagtuturo.	1.53	Hindi	Di Malawak
6. Ako ay naniniwala na hadlang ang dami ng bilang ng mga mag-aaral sa loob ng klasrum at kung hindi naihahanay ng guro ang mga gawaing angkop para sa mag-aaral hindi uunlad ang kanilang akademik performans.	1.50	Hindi	Di Malawak
Composite	2.05	Bihira	Di Gaanong Malawak

Leyenda:	Iskala	Berbal na Deskripsyon	Lawak ng Naranasan
	4.21 – 5.00	Palagi	Malawak na malawak
	3.41 – 4.20	Madalas	Malawak
	2.61 – 3.40	Minsan	Katamtaman na lawak
	1.81 – 2.60	Bihira	Di Gaanong malawak
	1.00 – 1.80	Hindi	Di malawak

Bagama't madalas na suliranin ang dami ng mag-aaral (3.47), ang kabuuang lawak ay bihira lamang (2.05). Tugma ito sa natuklasan ni Aldossari (2018) na malaking hamon ang malaking bilang ng klase, ngunit sa pag-aaral na ito, hindi ito nakitang hadlang sa paggamit ng DI.

**Talaan 7.** Lawak na Nararanasan ng mga Guro sa Suliranin sa Pamamahala Sa Loob ng Klasrum sa Panahon na Ginamit ang Differentiated Instruksyon

Dahil sa paggamit ng <i>differentiated</i> instruksyon:	w $\bar{x}$	Berbal Deskripsyon	Lawak ng Naranasan
1. Ako ay naniniwala na hindi epektibo ang paggamit ng Differentiated instruksyon kapag magulo ang mga mag-aaral.	3.97	Madalas	Malawak
2. Ako ay nakararanas ng kahirapan sa pagkontrol sa loob ng klase.	3.27	Minsan	Katamtaman na lawak



**Talaan 7 (Pagpapatuloy).** *Lawak na Nararanasan ng mga Guro sa Suliranin sa Pamamahala Sa Loob ng Klasrum sa Panahon na Ginamit ang Differentiated Instruksyon*

Dahil sa paggamit ng <i>differentiated</i> instruksyon:	w $\bar{x}$	Berbal Deskripsyon	Lawak ng Nararanasan
3. Ako ay naniniwala na maapektuhan ang akademik performans ng mga mag-aaral kapag magulo ang klase dahil sa mga gawain.	1.77	Hindi	Di malawak
4. Ako ay naniniwala na may kaingayan at kaguluhan ang klase sa tuwing ginagamit ko ang Differentiated instruksyon.	1.43	Hindi	Di malawak
5. Ako ay naniniwala na di angkop ang laki o bilang ng aking klasrum upang isagawa ang mas interaktibong paraan ang Differentiated instruksyon.	1.27	Hindi	Di malawak
6. Ako ay niniwala na di sapat ang lakas ng aking boses upang pamahalaan ko ang klase lalo kapag may iba't ibang gawain ng mga mag-aaral kaya di sa lahat ng pagkakataon ginagamit ko ang DI.	1.23	Hindi	Di malawak
Composite	2.16	Bihira	Mababa

Leyenda:	Iskala	Berbal na Deskripsyon	Lawak ng Nararanasan
	4.21 – 5.00	Palagi	Malawak na malawak
	3.41 – 4.20	Madalas	Malawak
	2.61 – 3.40	Minsan	Katamtaman na lawak
	1.81 – 2.60	Bihira	Di Gannong malawak
	1.00 – 1.80	Hindi	Di malawak

Ang pamamahala sa klase gamit ang DI ay bihira lamang na suliranin (2.16). Ang natuklasan ay katulad ng pag-aaral ni Aldossari (2018) na nagiging hamon lamang ang DI kapag hindi kontrolado ang ingay.

**Talaan 8.** *Lawak na Nararanasan ng mga Guro sa Suliranin sa Kagamitang Pampagtuturo sa Panahon na Gamitin ang Differentiated Instruksyon*

Dahil sa paggamit ng <i>differentiated</i> instruksyon	w $\bar{x}$	Berbal Deskripsyon	Lawak ng Nararanasan
1. Hindi sapat ang aking panahon sa paghahanda ng iba't ibang mga kagamitang pampagtuturo na angkop sa pangangailangan at kakayahan ng aking mga mag-aaral.	4.23	Palagi	Malawak na malawak
2. Hindi sapat ang aming gabay sa pagtuturo/ teachers guide kaugnay sa paggamit ng <i>differentiated</i> instruksyon.	1.87	Bihira	Di Gaanong malawak
3. Limitado lamang ang aming mga modyul kaugnay sa paggamit ng <i>differentiated</i> instruksyon na estratehiya.	1.50	Hindi	Di malawak
4. May ilang mga paksang mahirap gamitin ang <i>differentiated</i> instruksyon sa pagtuturo.	1.43	Hindi	Di malawak
5. Minsan iniwasan ko ang paggamit ng <i>Differentiated</i> instruksyon sa pagtuturo dahil nangangailangan ito ng mahabang oras sa pagproseso ng kaalaman.	1.43	Hindi	Di malawak



**Talaan 8 (Pagpapatuloy).** *Lawak na Nararanasan ng mga Guro sa Suliranin sa Kagamitang Pampagtuturo sa Panahon na Gamitin ang Differentiated Instruksyon*

Dahil sa paggamit ng <i>differentiated</i> instruksyon	$w\bar{x}$	Berbal Deskripsyon	Lawak ng Nararanasan
6. Minsan iniwasan ko ang paggamit ng <i>differentiated</i> instruksyon dahil nangangailangan ito ng mahabang oras sa paghahanda ng mga material na gagamitin sa klase at perang pambili nito.	1.33	Hindi	Di malawak
Composite	1.97	Bihira	Mababa
<b>Leyenda:</b>	<b>Iskala</b>	<b>Berbal na Deskripsyon</b>	<b>Lawak ng Nararanasan</b>
	4.21 – 5.00	Palagi	Malawak na malawak
	3.41 – 4.20	Madalas	Malawak
	2.61 – 3.40	Minsan	Katamtaman na lawak
	1.81 – 2.60	Bihira	Di Gaanong malawak
	1.00 – 1.80	Hindi	Di malawak

Pinakamalawak na suliranin ay oras sa paghahanda ng materyales (4.23). Katulad ito ng pag-aaral nina Al-Rashidi (2015) at Aldossari (2018) na nagsasabing ang pinakamalaking hamon ng DI ay ang matagal at masusing paghahanda ng materyales.

**Talaan 9.** *Talaan ng Buod ng Lawak na Nararanasan ng mga Guro sa Panahon ng Paggamit ng Differentiated Instruksyon*

Areas	$w\bar{x}$	Berbal Deskripsyon	Lawak ng Nararanasan
1. Bilang ng mga Mag-Aaral	2.05	Bihira	Di gaanong malawak
2. Pamamahala sa Loob ng Klasrum	2.16	Bihira	Di gaanong malawak
3. Kagamitang Pampagtuturo	1.97	Bihira	Di gaanong malawak
<b>Leyenda:</b>	<b>Iskala</b>	<b>Berbal na Deskripsyon</b>	<b>Lawak ng Nararanasan</b>
	4.21 – 5.00	Palagi	Malawak na malawak
	3.41 – 4.20	Madalas	Malawak
	2.61 – 3.40	Minsan	Katamtaman na lawak
	1.81 – 2.60	Bihira	Di Gaanong malawak
	1.00 – 1.80	Hindi	Di malawak

### 3.3 Performans ng mga Mag-aaral Pagkatapos Gamitin ang Differentiated Instruksyon

**Talaan 10.** *Performans ng mga Mag-aaral Pagkatapos Ginamit ng Guro ang Differentiated Instruksyon sa Kanilang Pagtuturo*

Rating	Berbal na Deskripsyon	Frequency	Percent
90% - 100%	Namumukod tangi	112	37.33
85% - 89%	Natatangi	87	29.00
80% - 84%	Katangi-tangi	63	21.00
75% - 79%	Katamtaman	38	12.67
Total		300	100.00
Average		86.42 (Natatangi)	
Sd		5.24	



Nasa natatangi (86.42%) ang kabuuang performans. Tugma ito sa pag-aaral nina Abell (2005), Servilio (2009), at Butler & Van Lowe (2010) na nagpapatunay na malaki ang epekto ng DI sa pagtaas ng marka ng mga mag-aaral.

### 3.4 Kaugnayan ng Lawak ng Pagkatuto at Performans

**Talaan 11.** Kaugnayan sa Pagitan ng Lawak ng Pagkatuto ng Mag-aaral Kaugnay sa Paggamit ng Differentiated Instruksyon at ang Kanilang Performans

Variables Correlated to Students' Performance	Comp. $r_s$	p-value	Decision	Remark
1. Pakikilahok	0.124	0.031	Reject $H_{01}$	Significant
2. Kasanayan	0.101	0.080	Fail to reject $H_{01}$	Not significant
3. Interes	0.060	0.297	Fail to reject $H_{01}$	Not significant
4. Oportunidad	0.034	0.554	Fail to reject $H_{01}$	Not significant
Overall	0.043	0.455	Fail to reject $H_{01}$	Not significant

Legend:	Value of r	Strength of Relationship (Statistical Correlation, 2009)
Between	$\pm 0.50$ to $\pm 1.00$	$\pm$ strong relationship
Between	$\pm 0.30$ to $\pm 0.49$	$\pm$ moderate relationship
Between	$\pm 0.10$ to $\pm 0.29$	$\pm$ weak relationship
Between	$\pm 0.01$ to $\pm 0.09$	$\pm$ very weak relationship

Tanging pakikilahok lamang ang may signifikanteng relasyon sa performans. Tugma sa natuklasan ni Ferrier (2007) na ang mataas na partisipasyon ay kaugnay ng mataas na marka.

Walang relasyon ang kasanayan, interes, at oportunidad, katulad ng obserbasyon ni Washington (2018) na maaaring dahil sa limitadong baryabilidad ng datos.

### 3.5 Kaugnayan ng Suliranin ng mga Guro at Performans

**Talaan 12.** Kaugnayan sa Probleman Kinakaharap ng mga Guro at ang Akademik Performans ng mga Mag-aaral

Variables Correlated to Students' Performance	Comp. $r_s$	p-value	Decision	Remark
1. Bilang ng mga Mag-Aaral	-0.153	0.008	Reject $H_{02}$	Significant
2. Pamamahala sa Loob ng Klasrum	-0.025	0.667	Fail to reject $H_{02}$	Not significant
3. Kagamitang Pampagtuturo	0.051	0.382	Fail to reject $H_{02}$	Not significant

Legend:	Value of r	Strength of Relationship (Statistical Correlation, 2009)
Between	$\pm 0.50$ to $\pm 1.00$	$\pm$ strong relationship
Between	$\pm 0.30$ to $\pm 0.49$	$\pm$ moderate relationship
Between	$\pm 0.10$ to $\pm 0.29$	$\pm$ weak relationship
Between	$\pm 0.01$ to $\pm 0.09$	$\pm$ very weak relationship

Tanging dami ng mag-aaral ang may signifikanteng "inverse" relation sa performans ( $p=0.008$ ). Ibig sabihin, habang dumarami ang mag-aaral, bahagyang bumababa ang kanilang akademik performans.

Ito ay sinusupportahan nina Subban (2006), Tomlinson (2012), at Bjork (2005) na nagsabing ang malaking klase ay nagiging hamon at nakaaapekto sa kalidad ng pagkatuto.



## 4.0 Lagom, Kongklusyon, at Rekomendasyon

Layunin ng bahaging ito na ipakita ang kabuuang larawan ng naging epekto ng differentiated instruksyon sa konteksto ng pagtuturo ng Filipino sa Sta. Catalina, Negros Oriental, at magbigay ng mga konkretong rekomendasyon para sa mas mahusay na implementasyon nito.

### 4.1 Lagom

Ang pag-aaral ay nagsuri sa lawak ng pagkatuto ng mga mag-aaral at mga suliraning naranasan ng mga guro kaugnay sa paggamit ng differentiated instruksyon (DI) sa pagtuturo ng asignaturang Filipino sa 13 pampublikong paaralan sa Sta. Catalina, Negros Oriental. Ang mahahalagang natuklasan ay ang sumusunod:

#### 1. Lawak ng pagkatuto ng mag-aaral sa paggamit ng DI

Batay sa apat na bahagi – pakikilahok, kasanayan, interes, at oportunidad – lumabas na malawak ang tingin ng mga mag-aaral sa implementasyon ng differentiated instruksyon.

- Pakikilahok:  $w\bar{x} = 4.12$  (Madalas/Malawak)
- Kasanayan:  $w\bar{x} = 4.08$  (Madalas/Malawak)
- Interes:  $w\bar{x} = 4.06$  (Madalas/Malawak)
- Oportunidad:  $w\bar{x} = 4.10$  (Madalas/Malawak)

#### 2. Lawak ng suliraning naranasan ng mga guro

Sa tatlong aspeto ng suliranin – bilang ng mag-aaral, pamamahala sa klase, at kagamitang pampagtuturo, lumabas na sa kabuuan ay bihira/di gaanong malawak ang suliraning kinahaharap ng guro.

- Bilang ng mag-aaral:  $w\bar{x} = 2.05$
- Pamamahala sa klase:  $w\bar{x} = 2.16$
- Kagamitang pampagtuturo:  $w\bar{x} = 1.97$

#### 3. Performans ng mga mag-aaral pagkatapos gumamit ng DI

Sa 300 mag-aaral, karamihan ay nagpakita ng mataas na antas ng akademik performans:

- Natatangi / Namumukod-tangi: 199 mag-aaral
- Pangkalahatang average: 86.42% (Natatangi)

#### 4. Kaugnayan ng pagkatuto (DI) at performans ng mag-aaral

Lumabas na may signifikant na kaugnayan lamang ang pakikilahok sa performans ( $p=0.031$ ).

Samantalang ang kasanayan, interes, at oportunidad ay walang signifikant na kaugnayan.

#### 5. Kaugnayan ng suliranin ng guro at performans ng mag-aaral

Tanging bilang ng mag-aaral ang nagpakita ng signifikant na *inverse* na relasyon ( $p=0.008$ ), na nangangahulugang mas malaking bilang ng mag-aaral = bahagyang pagbaba ng performans. Samantala, walang signifikant na relasyon ang pamamahala sa klase at kagamitang pampagtuturo sa performans.

### 4.2 Kongklusyon

Batay sa mga natuklasan, ang sumusunod na kongklusyon ay nabuo:

1. Epektibo at kapaki-pakinabang ang paggamit ng differentiated instruksyon sapagkat nagresulta ito sa malawak na pakikilahok, kasanayan, interes, at oportunidad ng mga mag-aaral sa pagkatuto.
2. Hindi malaking hadlang ang mga suliraning naranasan ng mga guro sa implementasyon ng DI, maliban na lamang sa hamon ng limitadong oras sa pagbuo ng kagamitang pampagtuturo.
3. Ang DI ay nagdulot ng mataas na akademik performans ng mga mag-aaral, na nasa antas na "Natatangi."
4. Ang pakikilahok ng mag-aaral ang tanging may signifikant na ugnayan sa kanilang akademik performans.
5. Ang dami ng mag-aaral sa klase ay may bahagyang negatibong epekto sa performans, ngunit hindi naman malaking hadlang batay sa antas ng relasyon.



### 4.3 Rekomendasyon

Batay sa kongklusyon ng pag-aaral, ang sumusunod na rekomendasyon ay inihaharap:

1. Patuloy na gamitin ng mga guro ang differentiated instruksyon lalo sa mga gawaing nakapokus sa pakikilahok upang mapanatili ang mataas na performans ng mag-aaral.
2. Maglaan ang paaralan ng dagdag na oras o "preparation period" para sa mga gurong gumagawa ng individualized at varied instructional materials.
3. Magbigay ng capacity-building sa paggawa ng mabisang DI strategies upang mabawasan ang hamon sa pamamahala ng klase.
4. Hikayatin ang kolaborasyon ng mga guro sa pagbuo at pagpapalitan ng DI materials upang mabawasan ang oras sa paghahanda.
5. Pag-aralan ng paaralan ang sectioning at class size, lalo na sa malaking klase, upang mabawasan ang bahagyang negatibong epekto sa performans.
6. Para sa pananaliksik sa hinaharap, maaaring isama ang:
  - mas malaking populasyon
  - obserbasyon sa aktwal na classroom implementation (classroom-based DI monitoring)
  - iba pang asignatura
  - mixed-method design para mas malalim na maunawaan ang epekto ng DI

### 5.0 Ambag ng May-Akda

Ang mananaliksik ang pangunahing nagsagawa ng lahat ng bahagi ng pananaliksik na ito, mula sa pagbuo ng konsepto, pagdisenyo ng instrumento, pangangalap ng datos, pagsusuri, hanggang sa pagsulat ng buong papel. Siya rin ang nag-ayos ng koordinasyon sa mga paaralan, guro, at mag-aaral sa Sta. Catalina, Negros Oriental upang maisagawa ang pag-aaral nang maayos at etikal.

### 6.0 Pagpopondo

Ang pananaliksik na ito ay isinagawa nang walang natanggap na anumang uri ng pinansyal na suporta mula sa alinmang institusyon, organisasyon, o ahensiya ng pamahalaan. Lahat ng gastusin ay personal na pinaglaanan ng may-akda.

### 7.0 Salungatan ng Interes

Ipinapahayag ng may-akda na **walang anumang salungatan ng interes** (conflict of interest) sa pagitan ng mga mananaliksik, respondente, institusyong pinagkunan ng datos, at anumang organisasyon na maaaring maapektuhan ng resulta ng pag-aaral.

### 8.0 Pasasalamat

Taos-pusong nagpapasalamat ang may-akda sa mga sumusunod:

- Mga punong-guro, superbisor, guro, at mag-aaral mula sa labintatlong (13) paaralang sekundarya ng Sta. Catalina Division sa Negros Oriental sa kanilang kooperasyon at partisipasyon.
- Division at District Offices sa pagbibigay ng pahintulot upang maisagawa ang pangangalap ng datos.
- Tagapayo at estadistisyan ng mananaliksik sa kanilang gabay sa pagbuo, rebisyon, at pag-analisa ng instrumento at resulta.
- Mga kapwa guro, kaibigan, at pamilya na nagbigay ng suporta, inspirasyon, at pag-unawa sa buong panahon ng pananaliksik.

Ang kanilang tulong at tiwala ang nagbigay-daan upang maisakatuparan ang pag-aaral na ito para sa kapakinabangan ng larangan ng edukasyon.



## 9.0 Mga Sanggunian

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# Error Analysis on Persuasive Essays of Grade 12 Students: Basis for Crafting a Grammar Review Material

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## Abstract.

Grammatical competence is essential in developing students' writing skills, particularly in producing academic texts such as persuasive essays. This study examined the grammatical errors found in the persuasive essays of 67 Grade 12 students at MSU-Saguiaran Community High School to identify, classify, and analyze the errors, determine their sources, and develop a grammar review material responsive to the students' needs. Employing a quantitative-descriptive design, the study used a validated essay task, a checklist, and an error log. Errors were analyzed using frequency and percentage, and categorized by type and source. Results revealed that capitalization errors were the most common (30%), followed by word choice (15.47%), subject-verb agreement (15.09%), punctuation (14.72%), and verb tense (10.75%). Less frequent but notable errors were on pronoun-antecedent agreement, articles, word order, and spelling. Omission was the most prevalent error type, followed by misformation, addition, and misordering. Intralingual errors comprised 93.21% of all errors, while interlingual errors accounted for 6.79%. Based on these findings, a grammar review material was developed to address the most problematic areas. The study concludes that, despite prior instruction, students continue to struggle with grammatical accuracy in their persuasive essays, underscoring the need for more targeted grammar interventions. It is recommended that the developed material be integrated into remedial or review classes and piloted for evaluation, with further research exploring its long-term impact and broader applicability.

**Keywords:** Error Analysis, Grammar Review Material, Persuasive Essay, Surface Strategy Taxonomy, College Entrance Examination

## 1.0 Introduction

English has become an essential tool for communication, education, and professional growth in today's globalized world. Its widespread use as a medium of instruction underscores the importance of mastering the language for academic and career success. Writing plays a central role in this context, functioning as a key medium for expressing ideas and disseminating information across digital and



print platforms. In the Philippine education system, particularly under the K-12 curriculum, Senior High School students are expected to demonstrate proficiency in academic writing. This skill requires clarity, organization, and grammatical accuracy.

Despite this emphasis, many Filipino students continue to struggle with writing due to limited comprehension and inadequate mastery of grammatical rules. Studies reveal that Senior High School students often exhibit weaknesses in grammatical competence, which affects their ability to produce coherent, well-structured texts. These difficulties persist even with prior grammar instruction, suggesting gaps in teaching strategies, insufficient practice, and limited exposure to academic writing tasks. Teachers also face challenges in providing individualized feedback due to time and workload constraints, further contributing to persistent writing errors.

Error analysis offers a systematic approach to understanding these challenges. By examining the grammatical and structural errors in students' written outputs, educators can identify recurring patterns and develop targeted interventions. This approach is especially relevant for Grade 12 students preparing for college entrance examinations, where writing competence is critical. In Marawi City, schools under the MSU-External Units implement a Booster Review Program to support students taking the System Admission and Scholarship Examination (SASE), emphasizing major subjects such as English, Mathematics, Science, and Aptitude. These high-stakes exams bring academic pressure, family expectations, and anxiety, but are also viewed by students as gateways to future opportunities.

In response to the need for improved writing performance, this study examined the grammatical errors found in the persuasive essays of Grade 12 students at MSU-Saguiaran Community High School. Guided by Selinker's Interlanguage Theory and Corder's Error Analysis Theory, the study identified the types and sources of errors committed by students. It used these findings as the basis for crafting a grammar review material tailored to their needs. This instructional material aims to support both remedial and preparatory learning, enhance grammatical proficiency, and strengthen students' readiness for college-level writing tasks.

## 2.0 Methodology

This section outlines the research design, locale, participants, instruments, data-gathering procedures, statistical tools, and ethical considerations observed during the study.

### 2.1 Research Design

This study employed a descriptive research design. It identified and classified the grammatical errors present in the persuasive essays of Grade 12 students at MSU-Saguiaran Community High School in Saguiaran, Lanao del Sur. The design enabled the researcher to analyze the frequency and distribution of errors, which served as the basis for crafting a grammar review material. Through this approach, common linguistic difficulties encountered by the students were systematically examined, providing essential insights for the development of a targeted instructional intervention.

### 2.2 Research Setting

The study was conducted at MSU-Saguiaran Community High School, located in the Poblacion of Saguiaran, Lanao del Sur, approximately six kilometers northeast of Marawi City. The school is 1 kilometer from the Municipal Hall and is one of the 13 MSU-External Units. As one of the pioneering high schools affiliated with Mindanao State University, MSU-Saguiaran was established as part of the University's mission to integrate the Muslim cultural community into the national framework.

Since its incorporation, the school has maintained its reputation as a feeder institution to MSU Main Campus by providing quality secondary education supported by qualified and competent faculty members (MSU-Office of the Assistant Vice Chancellor for Academic Affairs, 1996). As of 2022, the school has 37 faculty members and 10 administrative staff (Umpa, 2022).



### 2.3 Participants of the Study

The participants were all officially enrolled Grade 12 students of MSU–Saguiaran Community High School. The Grade 12 cohort consisted of two sections: Section A with 35 students and Section B with 32 students, for a total of 67 participants. The study used total enumeration sampling, meaning all students from both sections were included as respondents.

### 2.4 Research Instruments

The study utilized the following instruments:

1. **Essay Writing Prompt:** A validated essay task served as the primary data-collection instrument. Students were instructed to write a persuasive academic essay of at least two paragraphs on a topic aligned with their curriculum. This task elicited a range of linguistic skills necessary for identifying and analyzing grammatical errors.
2. **Error Analysis Checklist:** This checklist was used to identify and record the types of errors students committed, particularly omissions, additions, misformations, and misorderings.
3. **Grammatical Error Log:** This tool identified and categorized grammatical errors across nine areas: subject-verb agreement, verb tenses, pronoun-antecedent agreement, capitalization, spelling, punctuation, articles, word order, and word choice.

### 2.5 Data Gathering Procedure

The following procedures were observed:

1. **Entry Protocol:** Prior to data collection, the researcher secured formal approval from the School Principal and the advisers of the two Grade 12 sections. A formal letter outlined the objectives, significance, and methodology of the study. Once approved, students were informed about the study's purpose and procedures. Participant information sheets were distributed, emphasizing confidentiality and voluntary participation.
2. **Administration of the Essay Writing Task:** The researcher, with the class teacher's assistance, administered the essay task to all participants. Students were given sufficient time to complete the activity under classroom conditions to ensure uniformity.
3. **Identification of Grammatical Errors:** Collected essays underwent systematic evaluation using the Grammatical Error Log. A panel of expert raters composed of experienced English teachers validated the identification of errors.
4. **Classification of Error Types:** Using the Error Analysis Checklist, the researcher classified errors into omission, addition, misformation, and misordering. Expert raters also reviewed and confirmed the classification of error sources as either intralingual or interlingual.

### 2.6 Statistical Tools

The study employed the following statistical tools:

- **Frequency and Percentage** – Used to identify, categorize, and determine the occurrence of errors.  
Formula:  $\text{Percentage (\%)} = (f / N) \times 100$
- **Rank** – Used to determine the most frequently occurring errors.
- **Thematic Analysis** – Applied to identify recurring patterns in students' grammatical errors.



### 2.7 Ethical Considerations

The researcher ensured full compliance with ethical standards throughout the study. Informed consent was secured from the School Principal. Participants were assured of confidentiality, anonymity, and voluntary participation. No student was exposed to physical or psychological harm. All data were handled and reported with strict confidentiality, ensuring the privacy of personal information.

### 3.0 Results and Discussion

This section presents the study's results in the order of the research questions. The analyses focus on the grammatical errors found in the persuasive essays of Grade 12 students, the types and sources of these errors, and the implications for crafting the grammar review material.

#### 3.1 Grammatical Errors Committed by the Students

The grammatical errors in the students' persuasive essays were classified into nine areas: subject-verb agreement, verb tense, pronoun-antecedent agreement, capitalization, spelling, punctuation, articles, word choice, and word order.

**Table 1.** Frequency, Percentage Distribution, and Rank of Grammatical Errors

Grammatical Error	Frequency	Percentage (%)	Rank
Capitalization	159	30.00	1
Word Choice	82	15.47	2
Subject-Verb Agreement	80	15.09	3
Punctuation Mark	78	14.72	4
Verb Tense	57	10.75	5
Pronoun-Antecedent	28	5.28	6
Article	22	4.15	7
Word Order	14	2.64	8
Spelling	10	1.89	9
Total	530	100	

Capitalization emerged as the most frequent error (30%), followed by word choice and subject-verb agreement. Spelling and word-order errors occurred least frequently. This distribution suggests that students struggle more with mechanical conventions and lexical precision than with lower-level orthographic concerns. Similar patterns were reported by Munder (2020) and Uka et al. (2023), who found that capitalization, punctuation, and agreement dominate student writing errors.

The prevalence of capitalization errors indicates that many students still have difficulty applying even the most fundamental rules of written English, such as capitalizing the first word of a sentence, proper nouns, and formal terms. This finding reflects a persistent gap in students' mastery of basic writing mechanics despite years of exposure. It may also suggest that students devote greater cognitive effort to content generation than to editing and form, thereby overlooking mechanical conventions.

The substantial number of word-choice errors further shows that learners struggle to select vocabulary that appropriately matches the context, tone, and intended meaning of their sentences. This difficulty may stem from a limited lexical repertoire or over-reliance on direct translation from the first language. Such errors often lead to awkward phrasing or inaccurate expression, which can obscure the intended idea in persuasive writing, a genre that requires clarity, precision, and rhetorical effectiveness.



Subject-verb agreement errors likewise point to challenges in recognizing grammatical number and ensuring consistency between subjects and verbs, especially in complex clause constructions. This is consistent with Catabay's (2023) findings, which emphasized that agreement errors persist even among senior high school students due to incomplete internalization of English grammatical rules.

Meanwhile, the relatively low frequency of spelling and word-order errors suggests that, while students have a basic grasp of English orthography and syntax, their overall writing accuracy is hindered more by intermediate-level grammar structures than by surface-level sequencing or letter patterns. However, even if less frequent, these errors still contribute to decreased readability and can affect the persuasiveness of their essays.

Taken together, the distribution of errors reveals that the students' writing challenges are concentrated in higher-order grammatical and lexical decisions rather than purely mechanical aspects. This underscores the need for instruction that integrates explicit grammar teaching with meaningful writing practice, ensuring that students not only recognize rules but also apply them consistently in authentic communicative contexts.

### 3.2 Types of Errors Committed by the Students

Errors were categorized using the Surface Strategy Taxonomy (Dulay, Burt & Krashen, 1982): omission, addition, misformation, and misordering.

*Table 2. Frequency and Percentage Distribution of Types of Errors*

Type of Error	Frequency	Percentage (%)	Rank
Misformation	302	56.98	1
Omission	108	20.38	2
Addition	105	19.81	3
Misordering	15	2.83	4
Total	530	100	

Based on the Surface Strategy Taxonomy, the students' persuasive essays revealed four types of errors: omission, addition, misformation, and misordering. Among these types, omission was the most frequent, while misordering was the least frequent. This distribution offers insight into the developmental stage of the students' grammatical competence and the patterns by which they internalize and apply linguistic rules.

Omission errors, accounting for more than half of the total errors, often involved missing grammatical elements such as auxiliary verbs, articles, and necessary pronouns. The prevalence of this type suggests that learners are still consolidating foundational grammatical structures. According to Dulay, Burt, and Krashen (1982), omission errors are typical among second language learners who have not yet fully mastered obligatory morphemes or who simplify sentence structures to manage cognitive load during writing. In this study, many students seemed able to form general ideas but struggled to provide all the linguistic components needed to construct complete, grammatically correct sentences.

Misinformation ranked second among the error types, reflecting instances in which students attempted to apply rules but produced incorrect forms, such as faulty verb conjugations, inaccurate passive constructions, or inappropriate word substitutions. These errors indicate students' partial understanding of grammatical rules, where learners tend to generalize patterns without recognizing exceptions. This phenomenon aligns with Selinker's Interlanguage Theory, which posits that learners rely on self-constructed rules that approximate but do not fully match target language norms.



Addition errors, although less frequent than omission and misformation, signal the tendency of some students to insert unnecessary grammatical elements, often due to overcorrection or uncertainty in sentence construction. These additions, ranging from redundant prepositions to extra determiners, may represent attempts to ensure accuracy but, in fact, result in structural irregularities. Such patterns reflect learners' experimentation within their interlanguage system and mirror findings by Megantri and Budasi (2018), who observed that excessive insertions are commonly associated with confusion over syntactic boundaries.

Finally, misordering errors were the least common but notable because they directly affect sentence clarity. These errors typically involved incorrect word order in declarative sentences or misplaced modifiers, resulting in awkward or ambiguous expressions. Misordering is often associated with L1 syntactic patterns that differ from English, especially in languages that allow greater flexibility in word placement.

The distribution of error types indicates that students are actively constructing their understanding of English grammar but have not yet achieved consistent rule application. The dominance of omission and misformation underscores the need for grammar activities that focus on structural completeness, correct verb forms, and proper sentence architecture to support more accurate written output.

### 3.3 Sources of Errors

Sources of errors were examined based on the categories of intralingual and interlingual errors (Richards, 1974).

**Table 3.** Frequency and Percentage Distribution of Sources of Errors

Source of Error	Frequency	Percentage (%)	Rank
Intralingual	494	93.21%	1
Interlingual	36	6.79%	2
Total	530	100	

Analysis of the sources of errors showed that the vast majority of students' mistakes were intralingual, while a smaller portion resulted from interlingual interference. This pattern highlights the internal nature of learners' grammatical challenges and aligns with theories of second language acquisition that emphasize the role of developmental stages in shaping learner performance.

Intralingual errors accounted for more than 90% of the total, indicating that most mistakes originated in students' emerging knowledge of English. These errors are typically linked to overgeneralization, incomplete rule application, and misinterpretation of English grammatical structures. Examples include choosing incorrect verb forms, misusing articles, and simplifying clauses in ways that distort meaning. Such patterns reflect the learners' incomplete mastery of grammar rules and the evolving nature of their interlanguage system, as described by Selinker (1972). Intralingual errors, therefore, highlight areas where students require more explicit instruction and guided practice to refine their internalized linguistic rules.

Interlingual errors, though less frequent, remain an important aspect of student performance. These errors occurred when learners transferred patterns from their first language (L1) into English, resulting in incorrect structures or phrasing. Instances such as misordered modifiers, literal translations



of expressions, and tense forms influenced by L1 grammar illustrate how linguistic habits from the mother tongue can affect L2 writing. While only 6.79% of the total errors were interlingual, their presence demonstrates that some students rely on familiar structures from their native language when faced with uncertainty in English. This finding is consistent with Richards (1974), who asserted that early-stage learners often draw upon L1 knowledge before fully developing independent L2 systems.

The dominance of intralingual errors in this study suggests that students' primary challenges stem not from direct mother-tongue interference but from the complexities of internalizing English grammar itself. This suggests that students may benefit more from instruction focused on rule clarification, pattern recognition, and usage-based reinforcement than from interventions targeting L1 transfer issues. Nonetheless, addressing interlingual errors remains valuable, especially for promoting awareness of the structural differences between English and Filipino or local languages.

Together, the analysis of error sources emphasizes the importance of sustained grammar instruction grounded in explicit teaching, scaffolded practice, and corrective feedback. It also highlights the need for exposure to well-structured input that reinforces accurate language use, thereby supporting learners as they refine their interlanguage and move toward higher levels of writing proficiency.

### 3.4 Crafted Grammar Review Material

Based on the most frequent grammatical errors identified in the study, a comprehensive Grammar Review Material was developed to target the linguistic needs of the Grade 12 students specifically. The material is anchored in the principle that grammar instruction becomes more meaningful when it is directly responsive to actual learner difficulties. Thus, the design integrates authentic examples, simplified explanations, and progressively structured activities that mirror students' errors.

The material prioritizes the following skill areas:

- Capitalization rules and mechanics, focusing on sentence-initial words, proper nouns, and academic conventions.
- Word choice and vocabulary precision, emphasizing context-appropriate usage and common confusions.
- Subject-verb agreement, including rules for singular/plural subjects, compound subjects, and intervening phrases.
- Punctuation use in academic writing, particularly commas, periods, and run-on sentences.
- Verb tense consistency, with lessons covering progressive forms, passive structures, and modal + base verb patterns.
- Pronoun-antecedent agreement, addressing clarity of reference and singular-plural alignment.
- Article usage and determiners, focusing on "a," "an," "the," and zero article conventions.
- Word order in simple and complex sentences, highlighting common errors in modals, adjectives, and noun phrases.
- Commonly misspelled words, guided by actual orthographic errors in student outputs.

To ensure a clear, scaffolded learning experience, the material adopts a student-friendly, modular structure consisting of the following components:

1. Diagnostic Assessment: A short pre-test that mirrors the error categories found in the study. This is intended to help teachers identify students' starting proficiency levels and to help learners become aware of their weaknesses.



2. Brief Rule Explanation: Each lesson begins with a concise, accessible explanation of the target grammar rule. Rules are presented using simple examples and visual cues to support comprehension, aligned with Dulay, Burt, and Krashen's (1982) emphasis on clear, comprehensible input.
3. Guided Practice Exercises: Learners respond to short, targeted items that reinforce correct structures. Exercises progress from simple identification tasks to rewriting activities that gradually increase in complexity.
4. Error-Correction Activities Using Anonymized Real Samples: Authentic error samples from participants' persuasive essays are included (identities removed). Students analyze and revise the sentences – an approach supported by Zadeh (2012) and Catabay (2023), who highlight the effectiveness of using factual learner errors as instructional input for raising grammatical awareness.
5. Short Quizzes Per Section: Each module ends with a short formative test designed to reinforce mastery and provide immediate feedback.
6. Cumulative Review and Post-Test: The last part of the material includes a mastery test assessing all grammar points. This helps track improvement and identify remaining areas for remediation.
7. Answer Key and Teacher Guide: The material includes an answer key and brief teacher notes to support classroom implementation and ensure instructional consistency.

The overall design is informed by the study's findings and aligned with the pedagogical insights of Selinker's Interlanguage Theory (1972), which emphasizes the need for corrective input during the developmental stages of second language acquisition. By grounding the material in authentic learner errors and providing structured, incremental practice, the Grammar Review Material aims not only to remediate existing weaknesses but also to build long-term grammatical competence suitable for academic writing and college entrance examination preparation.

#### 4.0 Conclusion

Based on the findings of the study, the following conclusions were drawn:

Grade 12 students at MSU-Saguiaran Community High School exhibited persistent grammatical challenges in their persuasive essays, with capitalization errors being the most frequent. Other recurring issues concerned word choice, subject-verb agreement, punctuation, and verb tense, while less frequent errors involved pronoun-antecedent agreement, article usage, word order, and spelling. These results indicate that although students possess basic knowledge of grammar rules, they struggle to apply them consistently, especially in formal and academic writing tasks. The dominance of mechanical and syntactic errors suggests gaps in both surface-level writing conventions and deeper grammatical competence.

In terms of error types, omission errors were the most prevalent, followed by misformation, addition, and misordering. Omission errors commonly involve missing crucial grammatical components, such as auxiliaries, articles, and linking verbs, resulting in incomplete or unclear sentences. Misinformation errors arose from incorrect verb use, improper preposition choice, and inaccurate clause construction. These error patterns reflect students' partial rule acquisition and their ongoing developmental stage in second-language learning, in which they attempt to convey meaning using incomplete or incorrectly applied grammatical structures.

The analysis of error sources revealed that intralingual factors accounted for the vast majority of errors (93.21%). These include overgeneralization, simplification, and the misapplication of English grammar rules, supporting Selinker's Interlanguage Theory and Corder's Error Analysis Theory.



Interlingual errors, or those influenced by the students' first language, constituted only a small portion (6.79%), indicating that most grammatical difficulties stem from internal challenges within English rather than direct mother-tongue interference.

Aligned with these findings, a Grammar Review Material was developed to address the most prominent and recurring grammatical difficulties identified among Grade 12 students. This material focuses on the areas where students struggled most: capitalization, word choice, verb tense, subject-verb agreement, punctuation, and the error types of omission and misformation. The material is intended to enhance students' grammatical accuracy, support their preparation for college entrance examinations, and strengthen their overall academic writing proficiency.

#### 4.1 Recommendations

It is recommended that English teachers provide more explicit, targeted instruction on the grammatical areas where Grade 12 students demonstrated persistent difficulties, particularly in capitalization, word choice, subject-verb agreement, punctuation, and verb tense. Schools may also integrate the developed Grammar Review Material into remedial classes or review programs to strengthen students' writing competence, especially in preparation for college entrance examinations. Students are likewise encouraged to engage in regular writing practice and make independent use of the material to monitor their progress.

Future researchers may explore the effectiveness of the Grammar Review Material through intervention-based or classroom-based studies to further validate and refine its instructional value.

#### 5.0 Contribution of the Author

The author conceptualized the study, developed the research framework, and designed the methodology. She facilitated data collection, prepared the research instruments, and coordinated with expert validators for essay evaluation. The author conducted error analysis, performed statistical data analysis, and interpreted the findings in line with relevant linguistic theories. She also crafted the Grammar Review Material based on the identified errors and prepared the full manuscript for journal submission. All analyses, revisions, and final outputs reflect the author's independent scholarly contribution.

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# The Impact of Learning Action Cell (LAC) Sessions on Teacher Development and Student Achievement

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## Abstract.

This research assessed the impact of Learning Action Cell (LAC) sessions on teacher's professional development and the achievement of Grade 5 students in Jaclupan Elementary School, Jaclupan, Talisay City, Cebu during the S.Y. 2024-2025 as basis for collaborative-expertise oriented plan. Guided by the framework established in DepEd Order No. 35, s. 2016. Using a quantitative approach, data were collected from teachers and students of Jaclupan Elementary School in Talisay City, Cebu. The findings reveal that LAC sessions significantly enhance instructional practices, assessment strategies, and student learning outcomes. Statistical analysis (ANOVA) confirmed a strong correlation, with an F-value of 192.4 exceeding the critical value of 4.26 at a 0.05 significance level. Despite facing challenges such as time constraints and resource limitations, the study highlights the value of a Collaborative-Expertise Oriented Plan to further maximize the impact of LAC sessions. Strengthening administrative support, refining training programs, and addressing workload concerns are recommended to sustain teacher growth and improve student performance. Overall, this study emphasizes the critical role that collaborative professional learning plays in creating a more effective and student-centered educational environment.

**Keywords:** MAED, Administration and Supervision, Learning Action Cell (LAC) Session, Quantitative Research, Jaclupan, Talisay City, Cebu

## 1.0 Introduction

Teacher professional development plays a crucial role in improving instructional quality and learner achievement. In the Philippine education system, the Learning Action Cell (LAC) functions as the institutionalized school-based continuing professional development modality mandated under DepEd Order No. 35, s. 2016. It serves as a platform where teachers regularly meet to collaboratively reflect on practice, share expertise, and solve instructional challenges. LAC Sessions are rooted in the belief that collective professional learning leads to stronger classroom performance and improved learner outcomes.



However, despite its institutional importance, the effectiveness of LAC implementation varies across schools due to time constraints, workload, limited resources, inconsistent participation, and insufficient facilitation. These variations necessitate an empirical examination of how LAC influences both teacher development and student achievement, particularly at the school level, where LAC is intended to be most impactful.

This study investigated the impact of LAC Sessions on the professional development of Grade 5 teachers and the achievement of Grade 5 learners in Jaclupan Elementary School, Talisay City, Cebu. Guided by DepEd policies and existing research on collaborative professional learning, the study explored LAC's perceived contributions to pedagogy, assessment, and instructional leadership; examined learners' achievement across academic, socio-emotional, and practical-creative domains; and analyzed issues that affect LAC implementation. Findings from this research served as the basis for proposing a Collaborative Expertise-Oriented Plan to strengthen LAC as a mechanism for sustained teacher growth and learner success.

## 2.0 Methodology

This section presents the research design, the study's flow, the research environment, the respondents, the instrument, the data-gathering procedure, and the statistical treatment.

### 2.1 Research Design

The study employed a descriptive research design, using a modified standardized questionnaire to collect data on teacher development and learner achievement systematically. It also followed a descriptive-correlational approach to determine relationships between variables without inferring causality. Through this design, the study identified existing patterns in the effectiveness of Learning Action Cell (LAC) Sessions and their association with Grade 5 learners' performance.

### 2.2 Flow of the Study

The input included:

- demographic and professional information of teacher-respondents (age, gender, civil status, highest educational attainment, length of service, performance rating, and participation in trainings/seminars/workshops);
- The level of effectiveness of LAC Sessions on teachers' professional development (pedagogy, instructional leadership, assessment);
- the level of learners' achievement based on academic records;
- Issues and concerns teachers face when implementing LAC learnings.

The process involved:

1. securing approval through a transmittal letter;
2. administering surveys and obtaining learners' academic performance records;
3. applying statistical treatments;
4. presenting, analyzing, and interpreting the data;
5. drawing findings, conclusions, and recommendations.

The study's output was the formulation of a Collaborative Expertise-Oriented Plan to strengthen teacher professional growth and support improved student performance.



### 2.3 Research Environment

The study was conducted at Jaclupan Elementary School, a public elementary school in Barangay Jaclupan, Talisay City, Cebu, established in 1957. The school is located on a 5,859-square-meter campus and operates in two shifts (AM and PM) due to increasing enrolment.

As of SY 2024–2025, the school employs 46 teachers (4 male, 42 female) and serves 1,772 learners (918 male, 854 female). It is supported by four non-teaching personnel: a Public Schools District Supervisor (PSDS), a Principal, an Administrative Officer (ADOF), and an Administrative Assistant (ADAS). By actively implementing LAC Sessions, the school created a suitable environment for examining professional development and learner achievement.

### 2.4 Respondents

The respondents included teachers and Grade 5 learners of Jaclupan Elementary School. Purposive random sampling was used to ensure alignment with the study objectives.

Teacher inclusion criteria:

- a) must be a school head or teacher assigned to Jaclupan Elementary School;
- b) must have at least one year of teaching experience;
- c) must be willing to participate in the research.

**Table 1.** *Distribution of Respondents*

<b>Respondents</b>	<b>Total</b>	<b>%</b>
Teachers	40	45.98%
Learners	47	54.02%
<b>Total</b>	<b>87</b>	<b>100%</b>

### 2.5 Research Instrument

The questionnaire consisted of four parts:

1. Respondent Profile – age, gender, civil status, highest educational attainment, years of service, performance ratings, and participation in trainings/seminars/workshops.
2. Effectiveness of LAC Sessions – assessed teacher perceptions along pedagogy, instructional leadership, and assessment.
3. Learner Performance – evaluated academic, social-emotional, and practical-creative skills.
4. Issues and Concerns – determined challenges in applying learning from LAC Sessions.

### 2.6 Data Gathering Procedure

The procedure followed these steps:

1. Submission of a letter of request to the school principal.
2. Upon approval, questionnaires were personally distributed to participants, who completed them within 15–20 minutes.
3. The collected data were forwarded to a statistician for computation.
4. Results were returned, reviewed, analyzed, and interpreted with the guidance of the research adviser.
5. The final manuscript was prepared after revisions.



### 2.7 Statistical Treatment of Data

- Simple Percentage – used for presenting the demographic profile of respondents.
- Mean – used to determine the effectiveness of LAC Sessions and the level of learner achievement.
- Analysis of Variance (ANOVA) – used to test significant differences between LAC’s impact on teachers’ professional development and learners’ achievement.

### Scoring Procedures

Weight	Range	Response Category	Verbal Description
5	4.21– 5.00	Extremely Effective	LAC perceived as extremely effective
4	3.41– 4.20	Very Effective	LAC perceived as very effective
3	2.61– 3.40	Moderately Effective	LAC moderately effective
2	1.81– 2.60	Slightly Effective	LAC slightly effective
1	1.00– 1.80	Less Effective	LAC perceived as ineffective

### 2.8 Ethical Considerations

The study adhered to the ethical standards required in educational research. Prior to data collection, formal permission to administer the instrument was secured from the school principal of Jaclupan Elementary School. Participation by both teachers and Grade 5 learners was voluntary, and respondents were informed of the study's purpose and that data would be used strictly for academic purposes. No identifying information was collected to ensure confidentiality, and all responses were treated with anonymity. The study ensured that no physical, psychological, or academic risks were imposed on any participant throughout the research process.

### 3.0 Results and Discussion

This section presents the study's findings in response to the research questions. The results describe the profile of respondents, the impact of Learning Action Cell (LAC) sessions on teachers' professional development, the level of learners' achievement, the significance of their relationship, and the issues and concerns encountered during implementation.

#### 3.1 Relevant Information of the Respondents

*Table 2. Age Profile of the Learners*

AGE	FREQUENCY	PERCENTAGE
9	3	6%
10	39	83%
11	4	9%
12	1	2%
<b>TOTAL</b>	<b>47</b>	<b>100%</b>



The distribution shows that most learners are 10 years old (83%), indicating a typical age-appropriate cohort for Grade 5. The presence of slightly younger (6%) and older learners (11%–12%) may reflect early entry, retention, or academic delays. Such age diversity may influence instructional pacing and differentiation strategies. This aligns with Bernardo (2019) and Darling-Hammond et al. (2017), who emphasized that understanding learner diversity is critical for designing inclusive learning environments.

*Table 3. Gender Profile of the Learners*

GENDER FREQUENCY PERCENTAGE		
Male	16	34%
Female	31	66%
<b>TOTAL</b>	<b>47</b>	<b>100%</b>

Female learners constitute 66% of the class, indicating a gender imbalance that may affect group interactions and participation patterns. As Darling-Hammond et al. (2017) suggest, gender-responsive strategies help ensure equitable learning opportunities in diverse classrooms.

*Table 4. Age Profile of the Teachers*

AGE BRACKET	FREQ.	%
25–30	7	17.5%
31–35	7	17.5%
36–40	11	27.5%
41–45	9	22.5%
46–50	4	10%
51–55	2	5%
<b>TOTAL</b>	<b>40</b>	<b>100%</b>

Most teachers belong to the 36–40 age bracket (27.5%), reflecting a predominantly mid-career workforce. Such educators typically possess strong practical experience while remaining receptive to professional development. This supports Avalos (2019), who noted that mid-career teachers significantly contribute to effective professional learning communities.

*Table 5. Gender Profile of the Teachers*

GENDER FREQ. %		
Male	6	15%
Female	34	85%
<b>TOTAL</b>	<b>40</b>	<b>100%</b>

Female teachers dominate the sample (85%), consistent with national trends in elementary teaching. Diversity in teacher gender remains an area for improvement, though LAC sessions benefit all teachers regardless of gender (Bernardo, 2019).



**Table 6. Civil Status of the Teachers**

STATUS	FREQ.	%
Single	26	65%
Married	11	27.5%
Widow	3	7.5%
<b>TOTAL</b>	<b>40</b>	<b>100%</b>

A majority of the teachers (65%) are single, potentially giving them greater flexibility to engage in LAC activities. Married and widowed teachers also contribute meaningfully, although they may balance additional responsibilities.

**Table 7. Highest Educational Attainment**

DEGREE	FREQ.	%
Bachelor's	12	30%
With Master's units	23	57.5%
Master's Degree	3	7.5%
With Doctor's units	1	2.5%
Doctorate	1	2.5%
<b>TOTAL</b>	<b>40</b>	<b>100%</b>

Most teachers have graduate-level preparation (67.5%), enhancing the quality of LAC discussions and collaborative instructional practices. This matches the assertions of Stoll et al. (2018) on the importance of advanced teacher education for deep professional learning.

**Table 8. Length of Service**

YEARS	FREQ.	%
1-3	1	2.5%
4-6	4	10%
More than 6	35	87.5%
<b>TOTAL</b>	<b>40</b>	<b>100%</b>

A large majority (87.5%) have served more than six years, indicating stable professional experience. Such stability enhances the implementation and sustainability of LAC practices (Avalos, 2019).

**Table 9. Performance Rating**

RATING	FREQ.	%
Very Satisfactory	24	60%
Outstanding	16	40%
<b>TOTAL</b>	<b>40</b>	<b>100%</b>

All teachers achieved either "Very Satisfactory" or "Outstanding," suggesting a highly competent teaching force capable of maximizing LAC benefits.



**Table 10. Trainings/Seminars Attended**

TRAININGS	FREQ.	%
Division	10	25%
Regional	3	7.5%
National	27	67.5%
<b>TOTAL</b>	<b>40</b>	<b>100%</b>

Most teachers (67.5%) attended national-level training. Such exposure enriches LAC participation through wider instructional insights. This finding supports Avalos (2019).

### 3.2 Impact of LAC Sessions on Teachers' Professional Development

This section answers Research Question 2, focusing on pedagogy, instructional leadership, and assessment.

#### 3.2.1 Pedagogy

**Table 11. Impact of LAC Sessions on Pedagogy**

INDICATORS	WEIGHTED MEAN	RESPONSE CATEGORY	PERCENTAGE
LAC sessions enhance teachers' understanding of effective teaching methodologies.	4.45	Extremely Effective	89 %
Teachers develop innovative approaches to engage students in learning through LAC discussions.	4.35	Extremely Effective	87 %
LAC sessions provide opportunities for teachers to reflect on and refine their teaching practices.	4.6	Extremely Effective	92 %
Teachers gain deeper insight into student-centered and inclusive teaching strategies.	4.475	Extremely Effective	89.5 %
LAC sessions support the adaptation of lessons to diverse learning styles.	4.375	Extremely Effective	87.5 %
Teachers apply effective instructional strategies discussed in LAC sessions.	4.375	Extremely Effective	87.5 %
LAC sessions improve teachers' ability to design engaging and differentiated lesson plans.	4.45	Extremely Effective	89 %
Teachers integrate evidence-based teaching techniques into their daily instruction.	4.5	Extremely Effective	90 %
LAC sessions promote the use of instructional approaches to address diverse student needs.	4.35	Extremely Effective	87 %
Pedagogical and instructional improvements gained from LAC sessions enhance student learning outcomes.	4.3	Extremely Effective	86 %
<b>GRAND MEAN</b>	<b>4.42</b>	<b>Extremely Effective</b>	<b>88.4 %</b>



Teachers rated all pedagogical indicators as “Extremely Effective.” The highest rating (4.60) was given to opportunities for reflection and refinement of teaching practices. This reinforces the importance of reflective practice in professional growth. As Darling-Hammond et al. (2017) noted, collaborative reflection deepens pedagogical improvement.

The slightly lower rating (4.30) for direct student learning outcomes suggests a need to better align teaching improvements with measurable academic gains.

### 3.2.2 Instructional Leadership

**Table 12.** *Impact of LAC Sessions on Instructional Leadership*

INDICATORS	WEIGHTED MEAN	RESPONSE CATEGORY	PERCENTAGE
LAC sessions empower teachers to take leadership roles in developing instructional strategies.	4.325	Extremely Effective	86.5 %
Teachers actively share best practices and mentor peers during LAC discussions.	4.5	Extremely Effective	90 %
LAC sessions strengthen teamwork in addressing instructional challenges.	4.5	Extremely Effective	90 %
Participation in LAC sessions builds collaborative professional learning communities.	4.525	Extremely Effective	90.5 %
Teachers feel more connected and supported through collaborative LAC activities.	4.55	Extremely Effective	91 %
LAC sessions promote knowledge-sharing to improve overall teaching effectiveness.	4.6	Extremely Effective	92 %
Teachers collaboratively analyze student performance and adjust instructional methods accordingly.	4.4	Extremely Effective	88 %
LAC sessions create a positive environment for peer mentoring and leadership growth.	4.525	Extremely Effective	90.5 %
Teachers apply leadership skills to facilitate schoolwide instructional improvements.	4.4	Extremely Effective	88 %
Collaboration and leadership fostered through LAC sessions lead to sustained teaching advancements.	4.475	Extremely Effective	89 %
<b>GRAND MEAN</b>	<b>4.48</b>	<b>Extremely Effective</b>	<b>89.6 %</b>

Instructional leadership received the highest overall effectiveness rating among the three domains. Teachers valued collaboration, mentoring, and knowledge-sharing (4.60). The lowest, though still highly effective, was their confidence in taking leadership roles (4.325). This reflects developing but still emerging teacher-leader identities, consistent with the insights of Stoll et al. (2018).



### 3.2.3 Assessment

**Table 13.** *Impact of LAC Sessions on Assessment*

INDICATORS	WEIGHTED MEAN	RESPONSE CATEGORY	PERCENTAGE
LAC sessions improve teachers' ability to design effective and inclusive assessment tools.	4.425	Extremely Effective	88.5 %
Teachers learn diverse assessment strategies to evaluate student engagement and performance.	4.4	Extremely Effective	88.8 %
LAC sessions provide strategies for assessing and addressing diverse student learning needs.	4.475	Extremely Effective	89.5 %
Teachers integrate evidence-based assessment approaches into their teaching practices.	4.35	Extremely Effective	87 %
LAC sessions promote the effective use of formative and summative assessments.	4.4	Extremely Effective	88 %
Discussions in LAC sessions enhance teachers' ability to improve student comprehension through feedback.	4.525	Extremely Effective	90.5 %
Teachers apply new assessment methods to measure student progress more effectively.	4.525	Extremely Effective	90.5 %
LAC sessions guide teachers in implementing student-centered evaluation practices.	4.525	Extremely Effective	90.5 %
Teachers utilize assessment data to refine instructional strategies after LAC sessions.	4.3	Extremely Effective	86 %
Instructional assessment strategies gained from LAC sessions contribute to overall student success.	4.35	Extremely Effective	87 %
<b>GRAND MEAN</b>	<b>4.43</b>	<b>Extremely Effective</b>	<b>88.6 %</b>

Teachers affirmed that LAC sessions improved their use of inclusive and evidence-based assessment strategies. The highest impact was on enhancing comprehension through feedback (4.525). This supports Avalos (2019) on the role of collaborative professional learning in strengthening assessment practices.

**Table 14.** *Summary of the Impact of LAC Sessions*

LAC SESSION	AVERAGE FREQUENCY	RESPONSE CATEGORY	PERCENTAGE
Pedagogy	4.42	Extremely Effective	88.4 %
Instructional Leadership	4.48	Extremely Effective	89.6 %
Assessment	4.43	Extremely Effective	88.6 %
<b>TOTAL AVERAGE</b>	<b>4.44</b>	<b>Extremely Effective</b>	<b>88.87 %</b>
<b>STANDARD DEVIATION</b>		0.0263	

All three domains: Pedagogy, Instructional Leadership, and Assessment, were rated Extremely Effective, with an overall mean of 4.44. The low standard deviation (0.0263) indicates high response consistency.



### 3.3 Level of Learners' Achievement

Aligned with Research Question 3.

#### 3.3.1 Academic Skills

**Table 15. Academic Skills**

INDICATORS	WEIGHTED MEAN	RESPONSE CATEGORY	PERCENTAGE
Demonstrates understanding of key concepts through accurate responses.	4.125	Near Mastery	82.5 %
Applies critical thinking to analyze, evaluate, and interpret information.	4.025	Near Mastery	80.5 %
Solves mathematical problems using appropriate strategies and reasoning.	4.125	Near Mastery	82.5 %
Completes written tasks with clarity, coherence, and organization.	4.25	Attained Mastery	85 %
Demonstrates ability to synthesize information from multiple sources.	4.05	Near Mastery	81 %
Applies learned concepts to real-world situations and problem-solving.	4.3	Attained Mastery	86 %
Uses evidence to support opinions and conclusions.	4.075	Near Mastery	81.5 %
Demonstrates effective study habits and independent learning skills.	4.2	Near Mastery	84 %
Completes tasks on time with minimal supervision.	4.35	Attained Mastery	87 %
Shows improvement in assessment results across multiple subjects.	4.275	Attained Mastery	85.5 %
<b>Grand Mean</b>	<b>4.17</b>	<b>Near Mastery</b>	<b>83.4 %</b>

Students attained a grand mean of 4.17 (Near Mastery). Strengths include on-time task completion and real-world application (Attained Mastery). Areas nearing Mastery include critical thinking and information synthesis.

#### 3.3.2 Social and Emotional Skills

**Table 16. Social and Emotional Skills**

INDICATORS	WEIGHTED MEAN	RESPONSE CATEGORY	PERCENTAGE
Participates actively in group work while respecting others' ideas.	4.475	Attained Mastery	89.5 %
Demonstrates self-awareness by recognizing personal strengths and areas for improvement.	4.425	Attained Mastery	88.5 %
Practices self-regulation by managing emotions and staying focused during activities.	4.45	Attained Mastery	89 %
Communicates effectively and respectfully with peers and teachers.	4.525	Attained Mastery	90.5 %



**Table 16 (continued).** *Social and Emotional Skills*

INDICATORS	WEIGHTED MEAN	RESPONSE CATEGORY	PERCENTAGE
Shows empathy and understanding toward others' perspectives and experiences.	4.475	Attained Mastery	89.5 %
Demonstrates conflict-resolution skills in challenging situations.	4.275	Attained Mastery	85.5 %
Maintains positive relationships with peers and school staff.	4.525	Attained Mastery	90.5 %
Shows resilience by overcoming setbacks and continuing efforts.	4.475	Attained Mastery	89.5 %
Practices responsible decision-making in academic and social contexts.	4.575	Attained Mastery	91.5 %
Demonstrates leadership skills when working with others.	4.475	Attained Mastery	89.5 %
<b>Grand Mean</b>	<b>4.47</b>	<b>Attained Mastery</b>	<b>89.4 %</b>

Students demonstrated strong SEL competencies, especially responsible decision-making (4.575) and communication (4.525). Conflict resolution scored slightly lower but remained within mastery.

### 3.3.3 Practical and Creative Skills

**Table 17.** *Practical and Creative Skills*

INDICATORS	WEIGHTED MEAN	RESPONSE CATEGORY	PERCENTAGE
Applies classroom learning to real-life tasks and challenges.	4.525	Attained Mastery	90.5 %
Demonstrates creativity in producing original projects and outputs.	4.5	Attained Mastery	90 %
Completes hands-on activities with accuracy and attention to detail.	4.35	Attained Mastery	87 %
Uses available resources effectively to complete tasks.	4.45	Attained Mastery	89 %
Shows adaptability when working with new tools, technologies, or environments.	4.375	Attained Mastery	87.5 %
Demonstrates problem-solving skills in practical situations.	4.375	Attained Mastery	87.5 %
Applies creative thinking to find alternative solutions.	4.275	Attained Mastery	85.5 %
Shows initiative in exploring new ideas and approaches.	4.35	Attained Mastery	87 %
Demonstrates ability to collaborate on creative projects.	4.45	Attained Mastery	89 %
Produces outputs that reflect both creativity and functionality.	4.425	Attained Mastery	88.5 %
<b>Grand Mean</b>	<b>4.41</b>	<b>Attained Mastery</b>	<b>88.2 %</b>



Learners demonstrated Mastery in applying knowledge to real-world tasks and in producing creative outputs. Slightly lower ratings in adaptability and alternative problem-solving suggest areas for enriched instruction.

**Table 18. Summary of Achievement**

SKILLS	AVERAGE FREQUENCY	RESPONSE CATEGORY	PERCENTAGE
Academic	4.17	Near Mastery	83.40 %
Social and Emotional	4.47	Attained Mastery	89.40 %
Practical and Creative	4.41	Attained Mastery	88.20 %
<b>TOTAL AVERAGE</b>	4.35	Attained Mastery	87 %
<b>STANDARD DEVIATION</b>		<b>0.1295</b>	

Overall learner achievement reached Attained Mastery (4.35). The low standard deviation (0.1295) signifies uniform performance across domains. Improvements in teaching practice appear to be translating into consistent learner gains.

### 3.4 Test of Significant Difference

**Table 19. Difference Between Teacher Development and Student Achievement**

Variables	Critical F-value	Critical p-value	Decision	Interpretation
Difference between the impact of Learning Action Cell Sessions(LAC) to teacher's professional development and students' achievement	192.4	4.26	Rejected	Significant

The computed F-value (192.4) exceeded the critical value (4.26), leading to the rejection of the null hypothesis. Thus, LAC sessions significantly influence both teacher development and student achievement, confirming Desimone (2017) and Darling-Hammond et al. (2017).

### 3.5 Issues and Concerns

**Table 20. Issues and Concerns**

ISSUES AND CONCERNS	FREQUENCY	PERCENTAGE
1. Time constraints for LAC sessions	35	87.5%
2. Inadequate instructional materials	15	37.5%
3. Low teacher participation/attendance issues	1	2.5%
4. Disparities in student learning levels	8	20%
5. Misalignment of lac content with classroom needs	2	5%
6. Lack of administrative support	2	5%
7. Limited access to technology and internet connectivity	24	60%
8. Insufficient training for lac facilitators	3	7.5%
9. Resistance to change among teachers	4	10%
10. Heavy workload and multiple responsibilities	23	57.5%



Key concerns include time constraints (87.5%), limited technology (60%), and heavy workload (57.5%). These challenges indicate the need for administrative support, better scheduling, resource allocation, and facilitator training. Findings affirm Stoll et al. (2018) on the necessity of structural support for professional learning.

### 3.6 Synthesis

Across teacher profiles, professional development outcomes, learner achievement, and program challenges, the results reveal that LAC sessions substantially improve instructional quality and learner outcomes. However, sustainability requires addressing constraints in time, workload, technology, and administrative support to optimize the long-term effectiveness of the LAC framework.

## 4.0 Conclusion

This section synthesizes the study's significant findings and presents the corresponding conclusions and recommendations. Drawing from the statistical analyses, narrative interpretations, and thematic insights, the conclusions highlight the overall impact of Learning Action Cell (LAC) sessions on teacher development and student achievement. The recommendations offer actionable measures to strengthen professional learning practices and improve instructional outcomes.

### 4.1 Conclusions

Based on the findings of the study, the following conclusions are presented:

1. *Learner and teacher profiles reflect a mature and experienced teaching force and a learner group with typical demographic characteristics.*

Most teachers possess graduate-level preparation and more than 6 years of service, indicating a stable, competent workforce. Learners, predominantly 10 years old, fall within the expected developmental stage for Grade 5.

2. *LAC sessions are highly effective in enhancing teacher professional development across pedagogy, instructional leadership, and assessment.*

The consistently high ratings show that LAC discussions strengthen reflective practice, promote evidence-based teaching strategies, encourage leadership roles, and improve assessment literacy. Teachers overwhelmingly recognize LAC as a meaningful and practical professional development model.

3. *Learners demonstrate strong performance across academic, social-emotional, practical, and creative domains.*

Academic skills reached Near Mastery, while social-emotional and practical-creative skills achieved Attained Mastery. Consistency across domains indicates that improved teaching practices translate into well-rounded learner development.

4. *There is a significant difference between teacher professional development through LAC sessions and student achievement.*

The computed F-value (192.4) confirms that LAC participation significantly influences learner outcomes. This affirms that when teachers engage in sustained, collaborative learning, students benefit academically and holistically.

5. *LAC implementation faces notable challenges that may hinder optimal utilization.*

Time constraints, workload, limited access to technology, and insufficient instructional materials emerged as critical barriers. Administrative support, alignment with classroom needs, and facilitator readiness also require attention to sustain and maximize LAC's impact.

6. *A collaborative expertise-oriented plan is necessary to reinforce LAC effectiveness.*

Strengthening institutional support, refining LAC processes, and addressing identified issues will help ensure that the program remains relevant, responsive, and capable of elevating both teaching and learning outcomes.



## 4.2 Recommendations

Based on the conclusions, the following recommendations are proposed:

For School Administrators

- Allocate protected time for LAC sessions to reduce conflicts with classroom duties and minimize time constraints.
- Strengthen ICT infrastructure to support technology-based instructional practices introduced during LAC discussions.
- Provide sustained instructional resources, including teaching aids, modules, and digital materials, essential for LAC implementation.
- Ensure administrative participation to model commitment and provide guidance in aligning LAC topics with school priorities.

For Teachers

- Actively implement strategies from LAC sessions to refine lesson delivery, assessment practices, and classroom management.
- Engage in peer mentoring to reinforce collaborative leadership and support colleagues needing guidance.
- Document best practices and challenges to enrich future LAC discussions and build institutional knowledge.
- Participate in training opportunities to strengthen confidence in taking on instructional leadership roles.

For LAC Facilitators and School Heads

- Enhance facilitator training to improve session management, content alignment, and reflective dialogue.
- Integrate needs-based topics that address real classroom challenges, student diversity, and evolving curriculum demands.
- Monitor follow-through by guiding teachers in translating LAC learnings into observable classroom practices.

For Learners

- Continue engaging in activities that develop academic, social-emotional, and creative skills, supported by differentiated instruction.
- Seek help and feedback from teachers to improve mastery, particularly in areas rated as "Near Mastery."

For Future Researchers

- Conduct comparative studies across schools or divisions to determine whether similar LAC outcomes occur in varied contexts.
- Evaluate the effectiveness of the collaborative expertise-oriented plan once implemented.
- Consider longitudinal research to examine LAC's sustained impact on teacher competencies and student achievement.

## 5.0 Contribution of the Author

The author designed and implemented the study, prepared the research instruments, facilitated data collection, and conducted statistical analysis and interpretation of the results. She synthesized the findings to develop a collaborative expertise-oriented plan and prepared the full manuscript for journal publication.

## 6.0 Funding

This research received no external funding. The researcher personally shouldered all expenses incurred during data collection, printing, and processing.



## 7.0 Conflict of Interest

The researcher declares that there is no conflict of interest. The study was conducted independently, and no personal or financial relationships influenced the research process, findings, or conclusions.

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# Integrating Sustainable Hospitality Practices in the Bachelor of Science in Hospitality Management Curriculum in North Eastern Mindanao State University

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## Abstract.

Sustainable hospitality has become a critical priority in tourism education as global hospitality operations face increasing pressure to adopt environmentally responsible and socially conscious practices. In the Philippines, the Commission on Higher Education (CHED) encourages the integration of sustainability within the Bachelor of Science in Hospitality Management (BSHM) curriculum; however, the level of implementation varies among institutions. This study examined the extent to which sustainable hospitality practices are integrated into the BSHM curriculum of North Eastern Mindanao State University (NEMSU), identified gaps and challenges, and developed an enhanced sustainability-embedded curriculum aligned with global standards and the Sustainable Development Goals (SDGs). A qualitative-descriptive research design was used, employing curriculum audit, document analysis, and semi-structured interviews with program chairs, faculty members, students, and industry partners across NEMSU campuses. SDG mapping and thematic analysis were applied to determine the presence, depth, and coherence of sustainability content in the curriculum. Findings revealed that sustainability concepts are integrated in a limited number of courses, particularly Trends and Issues in Hospitality and Tourism and selected practicum engagements. However, integration remains fragmented, mostly environmental in focus, and lacking interdisciplinary and experiential application. Challenges include limited faculty training, outdated instructional resources, insufficient industry collaboration, and the absence of a unified sustainability framework. Stakeholders emphasized the need for stronger real-world sustainability exposure and competency-based curriculum improvement. The study proposed an enhanced BSHM curriculum framework that embeds sustainability competencies across major courses, strengthens practicum design, and aligns instructional delivery with global sustainable hospitality benchmarks. Strengthened integration is expected to produce graduates who are industry-ready, environmentally responsible, and capable of contributing to sustainable regional development.

**Keywords:** BSHM Curriculum, Hospitality Education, SDG Integration, Sustainable Hospitality Practices, Sustainability Framework



## 1.0 Introduction

The hospitality industry remains one of the world's most dynamic economic sectors, contributing significantly to global development. In 2023, the World Travel & Tourism Council reported that tourism and hospitality accounted for 10.4% of global GDP and supported over 319 million jobs worldwide, underscoring their vital role in economic resilience, cultural exchange, and community development. However, despite its substantial contribution, the sector is also recognized as a major consumer of natural resources and a contributor to greenhouse gas emissions. Hotels, restaurants, and tourism establishments are consistently linked to high levels of waste generation, water and energy consumption, and carbon emissions, situating the industry at the forefront of discussions on sustainability and climate action.

The United Nations World Tourism Organization highlights that future hospitality operations must be grounded in sustainable development, emphasizing not only reduced environmental impact but also strengthened social and economic contributions to local communities. Sustainability is therefore no longer optional; it is a strategic imperative shaping the long-term viability and competitiveness of hospitality enterprises. Educational institutions play a critical role in this transformation, as they are responsible for producing graduates equipped with the knowledge, skills, and values necessary to lead sustainable hospitality initiatives.

In the Philippines, the Commission on Higher Education reinforces this mandate through CMO No. 62, series of 2017, which encourages all higher education institutions (HEIs) to integrate environmental stewardship, sustainable development, and social responsibility across undergraduate curricula. This aligns with the country's commitment to the Sustainable Development Goals, particularly SDG 8 (Decent Work and Economic Growth), SDG 12 (Responsible Consumption and Production), and SDG 13 (Climate Action). Integrating sustainability in academic programs strengthens curriculum relevance by ensuring that graduates are responsive to contemporary global challenges while enhancing their employability in sustainability-driven hospitality markets.

However, despite policy mandates, studies indicate that sustainability integration in Philippine hospitality programs remains uneven. Cruz and Mendoza (2022) found that only 45% of hospitality programs in Mindanao adequately incorporate sustainability, highlighting a considerable mismatch between curriculum content and the evolving needs of the hospitality industry. International studies echo these concerns, noting that while many programs introduce sustainability topics, they often do so superficially, lacking the interdisciplinary and experiential learning components essential for deep understanding (Deale et al., 2009; Legrand et al., 2017). This gap results in graduates who are technically competent but insufficiently prepared for sustainability-oriented roles in hotels, resorts, and other tourism establishments, as well as related sectors.

The education literature emphasizes that effective sustainability instruction requires integrating theoretical knowledge, practical training, and value formation. Experiential learning has proven particularly effective, as internships, fieldwork, and community-based projects allow students to apply classroom theories in real settings (Barth et al., 2014). At the same time, emerging pedagogical trends, such as digital simulations, augmented reality, and sustainability analytics tools, enhance student engagement and provide advanced opportunities for skill development. These innovations are complemented by global best practices, including exposure to eco-certification standards, sustainability audits, and partnerships with environmentally responsible hospitality enterprises.

For North Eastern Mindanao State University (NEMSU), a leading higher education institution in the Caraga region, aligning its Bachelor of Science in Hospitality Management (BSHM) curriculum with global sustainability standards is both a responsibility and an opportunity. The BSHM program traditionally emphasizes technical, operational, and service-oriented competencies, yet the accelerating impacts of climate change and environmental degradation demand a recalibration of these competencies toward sustainability. While some subjects within the curriculum address environmental awareness or responsible tourism, there is currently limited empirical evidence on the breadth and depth of sustainability integration across courses, teaching strategies, and practicum engagements.



The challenges encountered by the university further highlight the urgency for curricular enhancement. Issues such as inadequate campus waste management, limited recycling infrastructure, overreliance on single-use plastics, and high water and energy consumption indicate systemic gaps in institutional sustainability practices. Feedback from employers also reveals that while NEMSU graduates demonstrate technical proficiency, they often lack competencies in environmental problem-solving, sustainability leadership, and strategic green planning—skills increasingly required in the global hospitality workforce.

This disconnect between industry expectations and graduate preparedness underscores the need for a systematic, outcomes-based approach to embedding sustainability within the BSHM curriculum. Integrating sustainability not only improves curriculum relevance and graduate employability but also fosters a culture of innovation and social responsibility within the university. Strengthened industry-academe partnerships, sustainable practicum placements, and community-engaged learning can further enrich hospitality education and support regional development.

Given these concerns, this study investigates the extent to which sustainable hospitality practices are integrated into the BSHM curriculum at NEMSU. Specifically, it examines existing curriculum content, evaluates stakeholder perceptions, identifies gaps and challenges in sustainability integration, and proposes a sustainability-embedded curriculum framework aligned with global industry standards and the SDGs. By providing evidence-based recommendations, the study aims to inform curriculum enhancement efforts within NEMSU and offer insights relevant to other HEIs seeking to mainstream sustainability in hospitality education.

The significance of the study extends beyond curriculum reform. Strengthening sustainability integration contributes to institutional quality assurance, enhances local industry competitiveness, and fosters environmentally and socially responsible hospitality professionals. As the hospitality industry continues to evolve in response to global sustainability pressures, higher education institutions must adopt proactive approaches to preparing future-ready graduates capable of leading transformative change.

## 2.0 Methodology

This section describes the research design, locale, participants, instruments, data-gathering procedure, data analysis, and ethical considerations employed in examining the integration of sustainable hospitality practices into the BSHM curriculum of North Eastern Mindanao State University (NEMSU).

### 2.1 Research Design

The study employed a descriptive-evaluative research design to determine the extent of integration of sustainable hospitality practices within the current BSHM curriculum. The descriptive component mapped existing curriculum content, instructional strategies, and experiential learning opportunities related to environmental, social, and economic sustainability. The evaluative component assessed these elements against international sustainability frameworks, particularly the United Nations Sustainable Development Goals (SDGs), with emphasis on SDG 6 (Clean Water and Sanitation), SDG 8 (Decent Work and Economic Growth), SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), and SDG 17 (Partnerships for the Goals). National regulatory standards, including CHED Memorandum Order No. 62, s.2017, EMB directives, RA 9003, RA 9275, and DOT-DTI sustainability issuances, were used as supplementary evaluative criteria. A Curriculum Audit Tool (CAT) was developed to guide the systematic review of curriculum documents and ensure alignment with sustainability frameworks.



## 2.2 Research Locale

The study was conducted across all NEMSU campuses: Tandag (main campus), Cantilan, Cagwait, Lianga, and Tagbina. The primary research site was the College of Hospitality and Tourism Management in Tandag City, which delivers the BSHM program. Its strategic location, academic-industry partnerships, and proximity to ecotourism destinations made it an appropriate setting for curriculum evaluation. The campus environment, including laboratory facilities, internships, and community-engaged programs, provided a rich context for assessing sustainability integration.

## 2.3 Research Participants

Participants were selected through purposive sampling based on their direct involvement in hospitality education or industry practice. They included BSHM Program Chairs, faculty members, students, industry partners, and Municipal Tourism Officers. Participants were grouped according to their corresponding Statement of the Problem (SOP):

SOP	Participants	Number
SOP 1	Students, Program Chairs	10
SOP 2	Students, Program Chairs, Industry Partners	5
SOP 3	Students, Program Chairs, Industry Partners, Tourism Officers	5
SOP 4	Program Chairs, Industry Partners, Tourism Officers	5

Inclusion criteria required that participants be directly engaged with the BSHM program or sustainability initiatives and willing to provide informed consent. Those not affiliated with the program or lacking relevant knowledge were excluded.

## 2.4 Research Instrument

The principal instrument was the Curriculum Audit Checklist, which assessed curriculum alignment with six priority SDGs. Distinct checklists per SDG examined: (1) course content, (2) instructional methods, (3) practical learning opportunities, (4) legal and policy alignment, (5) assessment approaches, and (6) institutional linkages. Experts in curriculum development, environmental science, and hospitality education validated the tool. Semi-structured interviews and focus group discussions complemented the instrument to triangulate curriculum findings.

## 2.5 Data Gathering Procedure

Data collection followed a structured, multi-step process:

1. Document Collection – Gathering curriculum guides, syllabi, CHED CMO 62, DENR-EMB directives, RA 9003, DOT/DTI sustainability issuances, and institutional policies.
2. Curriculum Audit – Employing the CAT to examine SDG alignment, instructional methods, and assessment practices.
3. Stakeholder Engagement – Conducting interviews and focus group discussions with faculty, students, program chairs, industry partners, and tourism officers.
4. Synthesis and Thematic Coding – Organizing findings based on SDG themes to identify strengths, gaps, and opportunities.
5. Regulatory Framework Integration – Cross-referencing curriculum content with national policies to ensure compliance.



- Documentation – Consolidating tools, matrices, and legal references into appendices for transparency.

## 2.6 Ethical Considerations

The study adhered to ethical standards set by NEMSU and national regulations. Formal permission was secured from the university and program heads before data collection. Participation was voluntary, with informed consent obtained from each respondent. Coding identities and storing data securely preserved confidentiality. Discussions were conducted respectfully to protect participant well-being, particularly when addressing institutional gaps. The study complied with CHED ethics guidelines, RA 10173 (Data Privacy Act), and institutional research policies. No data were used for purposes beyond the scope of this study.

## 2.7 Data Analysis

The study used a combination of qualitative and descriptive analytical techniques:

- Curriculum Content Frequency Mapping – Coding sustainability-related keywords to classify courses as explicitly integrated, implicitly integrated, or not integrated.
- Curriculum Gap Evaluation Matrix – Comparing curriculum components against SDG indicators and national sustainability standards.
- Thematic Analysis – Identifying recurring patterns from interviews and FGDs to surface stakeholder perceptions and challenges.
- Data Triangulation – Cross-validating findings across documents, stakeholder inputs, and regulatory frameworks to ensure reliability.

## 3.0 Results and Discussion

### 3.1 Current State of Sustainability Integration in the BSHM Curriculum

A curriculum audit was conducted to evaluate the presence and depth of sustainability content across the BSHM program. Results show that sustainability is present but fragmented, with most concepts delivered through selective courses such as *eHM1 – Trends and Issues in the Hospitality Industry* and the Practicum subjects.

**Table 1.** Integration of SDG 6 – Clean Water and Sanitation

SDG	Description of SDG	Course Code & Description	Topic/s Covered	Remarks
SDG 6: Clean Water and Sanitation	Ensure availability and sustainable management of water and sanitation for all	eHM1 – Trends and Issues in the Hospitality	Water conservation techniques in food, housekeeping, and hotel operations	Year Level: 1 <sup>st</sup> Year Hours: 6–8 Practicum training on reduced water usage (towel and linen reuse), classroom lessons on faucet aerators, and water-saving technologies. The curriculum delivers water conservation techniques through both theory (lectures and discussions) and practice (hands-on activities during practicum).



Analysis shows that water conservation topics (e.g., towel/linen reuse, low-flow fixtures) are taught through lectures and practicum immersion. However, advanced topics such as greywater systems or water audits are not yet included. This aligns with global findings that sustainability instruction in hospitality typically begins with basic environmental practices (Jones et al., 2017).

*Table 2. SDG 8 – Decent Work and Economic Growth*

SDG	Description of SDG	Course Code & Description	Topic/s Covered	Remarks
SDG 8: Decent Work and Economic Growth	Promote inclusive and sustainable economic growth, employment, and decent work for all.	Practicum Courses (e.g., Internship, OJT)	Staff training, guest engagement on sustainability practices	<p>Year Level: 4th Year</p> <p>Hours: 600</p> <p>Staff Training and Orientation: Students participate in company-led training programs that introduce them to workplace roles, responsibilities, and operating procedures. These trainings emphasize professional conduct, operational safety, and sustainability practices observed by the partner establishments.</p> <p>Guest Engagement Activities:</p> <p>A notable responsibility given to student interns is to assist in briefing hotel guests on sustainability-related initiatives. This includes Encouraging towel and linen reuse to minimize water and energy consumption and Promoting the reduction of single-use plastics, such as advising guests to use refillable containers or reusable bags.</p> <p>Observation of Workplace Sustainability Policies: Students gain exposure to the internal policies of hospitality establishments related to sustainability and operational ethics. These policies may involve waste management systems, green housekeeping protocols, and employee welfare practices.</p>



**Table 3.** *SDG 11– Sustainable Cities and Communities*

SDG	Description of SDG	Course Code & Description	Topic/s Covered	Remarks
SDG 11: Sustainable Cities and Communities	Make cities inclusive, safe, resilient, and sustainable	eHM1 – Trends and Issues in the Hospitality	Sustainable design, green infrastructure, sustainable mobility	Year Level: 1st Year Hours: 5–6 Discussion of green building features (solar panels, Green building features like solar panels, recycling bins discussed. However, minimal coverage of mobility. Recommend adding carbon offsetting and fleet management discussions. Integration Opportunity: Incorporate urban sustainability case studies and apply sustainable city planning principles (e.g., LEED-ND) into project-based assessments.

**Table 4.** *SDG 12– Responsible Consumption and Production*

SDG	Description of SDG	Course Code & Description	Topic/s Covered	Remarks
SDG 12: Responsible Consumption and Production	Ensure sustainable consumption and production patterns	eHM1 – Trends and Issues in the Hospitality	Sustainable tourism, waste reduction, eco-friendly amenities, sustainable sourcing	Year Level: 1 <sup>st</sup> Year Hours: 5–7 Class discussions, menu planning using local/organic ingredients, and waste segregation practices are Evident in class discussions, simulations, and projects on menu planning using local/organic ingredients. Students engage in waste segregation practices. Recommends strengthening partnerships with green suppliers and live case studies. Integration Opportunity: Embed global sustainability standards such as ISO 21401 (Sustainability Management Systems for Accommodation Establishments) into course activities and assessments.



**Table 5. SDG 13– Climate Action**

SDG	Description of SDG	Course Code & Description	Topic/s Covered	Remarks
SDG 13: Climate Action	Take urgent action to combat climate change and its impacts	eHM1 – Trends and Issues in the Hospitality	Energy efficiency, renewable energy, green building design	Year Level: 1 <sup>st</sup> Year Hours: 6 Lessons cover the use of solar panels, LED, and passive cooling in hotels. Students present sustainability reports. Recommend immersive simulations and facility visits for better application. Integration Opportunity: Include climate resilience planning and carbon footprint monitoring in simulation projects and event planning.

**Table 6. SDG 17– Partnerships for the Goals**

SDG	Description of SDG	Course Code & Description	Topic/s Covered	Remarks
SDG 17: Partnerships for the Goals	Strengthen the means of implementation and revitalize the global partnership for sustainable development.	Internship Program, Guest Lectures, LGU Linkages	Partner hotels, tourism offices, and sustainable resorts	Year Level: 4th Year Hours: 600 Guest speakers from eco-certified hotels invited. Recommend forming MOUs with green resorts and LGUs for sustained collaboration and service learning. Integration Opportunity: Align learning outcomes and partner criteria with UNWTO Tourism for SDGs platform and local sustainability councils.

Across SDGs, results indicate:

- SDG 8 (Decent Work): Strong integration through industry practicum (600 hours), covering employee welfare, sustainability orientations, and guest engagement.
- SDG 11 (Sustainable Cities): Introduction to green buildings and urban sustainability, though mobility and resilience concepts remain limited.
- SDG 12 (Responsible Consumption): Evident through menu planning, sourcing local ingredients, and waste segregation activities; stronger integration through ISO 21401 is recommended.
- SDG 13 (Climate Action): Coverage of energy-efficient systems and renewable energy; however, climate resilience and carbon foot printing require deeper exploration.
- SDG 17 (Partnerships): Internship collaborations with LGUs and eco-certified hotels exist, but formalized MOUs remain limited.



The curriculum displays an emerging but uneven integration of sustainable hospitality practices. Environmental aspects are emphasized, while social and economic sustainability receive less instructional time. This confirms Cruz & Mendoza’s (2022) findings that many hospitality programs in Mindanao lack comprehensive alignment with sustainability.

### 3.2 Perceived Gaps and Challenges in Sustainability Integration

**Table 7.** Perceived Gaps in Integrating Sustainability Principles in the BSHM Curriculum as Identified By Faculty Members, Students, And Industry Professionals

Themes	Sub Themes	Responses
1. Limited Practical and Real-World Exposure	Lack of hands-on experience Insufficient industry collaboration	There is a gap in providing enough hands-on experience, particularly in real-world hospitality settings” -Student, NEMSU Cagwait Campus
2. Outdated Curriculum and Lack of Technological Integration	Lack of exposure to modern sustainability tools Absence of technology-focused case studies	The curriculum does not fully emphasize the latest tools and software used in the field, like property management systems or sustainability tracking tools.” – Student, NEMSU Cagwait Campus.  “The textbooks are outdated. There’s a lack of case studies involving the latest sustainable technologies.” – Department Chair, NEMSU Cagwait.  “Technologies like green buildings and smart waste management aren’t introduced to students yet. These are key innovations in sustainable hospitality.” – Department Chair, NEMSU Tagbina
3. Fragmented Curriculum and Lack of Interdisciplinary Approach	Siloed sustainability content - Weak integration across business disciplines	“Our students graduate with minimal exposure to digital tools that are now standard in sustainable operations, like eco-certifications, energy use apps, or supply chain audits.” – Faculty, NEMSU Tandag We study sustainability in environmental subjects, but not in other areas like finance or marketing.” – Student, NEMSU Tagbina  “Students often learn about hospitality operations, sustainability, and management separately. We need an integrated approach.” – Chair, NEMSU Tagbina  “The economic and social dimensions of sustainability are not consistently discussed in our courses.” – Chair, NEMSU Tandag



**Table 7 (continued).** *Perceived Gaps in Integrating Sustainability Principles in the BSHM Curriculum as Identified By Faculty Members, Students, And Industry Professionals*

Themes	Sub Themes	Responses
		"Sustainability is not deeply integrated across the curriculum. It's more of a side-topic than a guiding theme." - Chair, NEMSU Lianga
4. Weak Industry-Academic Linkages	Lack of partnerships with sustainable businesses	"There could be more opportunities for networking, such as partnerships with professionals or site visits. We don't get enough exposure to real industry sustainability". -Student NEMSU Tandag
	Limited businesses	
	Limited networking and applied learning opportunities	"We haven't yet developed strong partnerships with eco-certified hotels or local businesses practicing sustainability." - Program Chair, NEMSU Cantilan
		"Guest speakers, internships, or live projects with sustainable firms would help us bridge the gap. Right no, those opportunities are limited." -Department Chair NEMSU Tagbina
		"The lack of coordination with industry professionals makes it harder for us to assess how sustainability is truly practiced in the field." - Faculty, NEMSU Cagwait
		(Millar & Park, 2013: Effective sustainability education requires collaboration with industry professionals to provide hands-on learning experiences.

Key themes include:

1. Limited practical exposure: Students lack opportunities for hands-on sustainability application due to weak industry partnerships.
2. Outdated instructional materials: Case studies and tools do not reflect modern sustainability practices (e.g., PMS-based energy apps, waste-tracking systems).
3. Fragmented curriculum: Sustainability is taught mainly in siloed environmental subjects rather than across functions (marketing, HR, finance).
4. Weak academe-industry linkages: Minimal collaboration with eco-certified establishments, reducing real-world learning opportunities.

These concerns align with those of Millar and Park (2013), who argue that hospitality sustainability education requires close collaboration with industry practitioners for authentic learning.



**Table 8** Challenges in Integrating Sustainability Principles in the BSHM Curriculum as Identified by Faculty Members, Students, and Industry Professionals

Themes	Sub Themes	Responses
1. Limited Faculty Training and institutional Support	Lack of faculty training	“Faculty don’t have the latest tools to teach sustainability effectively.” - Chair, NEMSU Cantilan
	Inadequate administrative and technical support	“We need more training and industry immersion to confidently deliver sustainability content.” - Faculty, NEMSU Lianga “Faculty members may hesitate to include sustainability topics because they lack technical understanding.” - Faculty, NEMSU Tandag (Leal Filho, 2024): “Inadequate training and lack of support from top management are key barriers to implementing sustainability in higher education.”

Three major themes emerged:

- Insufficient faculty training: Instructors lack updated knowledge and tools for teaching sustainability.
- Curriculum overload: Faculty hesitate to add new sustainability topics due to already full course loads (OECD, 2020).
- Difficulty embedding sustainability: Limited pedagogical strategies and alignment hinder seamless integration.

Collectively, these challenges reflect Leal Filho et al.’s (2022) concept of “fragmented sustainability transitions” in higher education.

### 3.3 Perceptions on the Importance of Sustainability

**Table 9.** Perceptions on the Importance of Sustainable Hospitality Practices

Themes	Sub Themes	Responses
1. Sustainability as a Strategic Skillset for Employability and Leadership	1.1 Sustainability enhances employability	<i>Joressa Alolod (Pacific View Hotel):</i> “Integrating sustainable practices into the curriculum will make them more employable and ready to lead sustainability efforts.” - <i>Ali (2017):</i> Employers value sustainability competencies in hospitality graduates.
	1.2 Graduates as future sustainability leaders	<i>Jessett Manalo (Kaliguan Beach Resort):</i> “Graduates will be ready to lead sustainability efforts, making informed decisions that balance business goals with environmental and social responsibility.” - <i>July Solomon (NEMSU Lianga):</i> “If we integrate sustainability now,



**Table 9 (continued).** Perceptions on the importance of sustainable Hospitality Practices

2. A Holistic Perspective – Beyond Environment to Economic and Social Sustainability	2.1 Overemphasis on environmental aspects	we’re not just creating professionals; we’re creating responsible leaders.” - <i>Sustainable Hospitality Alliance (2022)</i> : Sustainability training supports leadership readiness.
	2.2 Importance of social sustainability	- <i>Clara Erlina (NEMSU Tandag)</i> : “We tend to focus more on the environmental aspect... but we miss out on teaching the social and economic dimensions of sustainability.” - <i>Albina Marie Perez (Uptown Hotel)</i> : “It’s not just about the environment – it’s also about social responsibility and fair treatment of workers.”
	2.3 Cultural and regional contextualization	- <i>Deale &amp; Barber (2012)</i> : Students and professionals demand social responsibility education. - <i>Jesett Manalo</i> : “Students should learn how sustainability varies across regions and cultures.” - <i>Elkington (1997)</i> : Triple bottom line stresses context-driven, integrated sustainability.
3. Experiential Learning as the Vehicle for Embedding Sustainable Mindsets	3.1 Real-world exposure deepens learning	- <i>Rudani Guazon (Tourism Officer, Cantilan)</i> : “We need to let our students experience what is real, what is happening on the ground.”
	3.2 Internships and partnerships with sustainable businesses	- <i>Student (NEMSU Lianga)</i> : “Internships or collaborations with sustainable hospitality businesses could be added to the curriculum.”
	3.3 Practical application of theory	- <i>July Solomon (NEMSU Lianga)</i> : “Hands-on experience is how we learn. We can design waste plans or assess eco-hotels – it sticks more that way.” - <i>Sebby &amp; Brown (2020) and Lo (2022)</i> : Experiential learning significantly enhances sustainability competence.

Stakeholders unanimously view sustainability as:

- A strategic employability skill, aligned with industry demand for green competencies (Ali, 2017).



- A leadership competency, preparing graduates to manage CSR initiatives and environmental programs (SHA, 2022).
- A multidimensional concept, requiring inclusion of environmental, social, and economic elements (Elkington, 1997).
- A learning process best achieved through experiential engagement, consistent with Sebby & Brown (2020) and Lo (2022).

These findings support the integration of sustainability not merely as content, but as a core value shaping future-ready hospitality leaders.

### 3.4 Best Practices and Innovative Approaches

**Table 10.** Best Practices in Sustainable Hospitality Education for Enhancing the BSHM Curriculum at NEMSU

Themes	Sub-Themes	Responses
1. Experiential Learning and Community Engagement	1.1 Real-world application of sustainability practices	- "We need to let our students experience what is real, what is happening on the ground..." - Rudani Guazon, Cantilan Tourism Officer - "Outreach, eco-campaigns, and immersive fieldwork are key." - Kaliguan Beach Resort
2. Local Integration	2.1 Using local sustainability practices as case studies	- "Waste management, solar-powered resorts, and community-based tourism must be written into the curriculum." - Cantilan & Lianga Tourism Officers
3. Cross-Departmental Sustainability	3.1 Sustainability Applied Across Hospitality Functions	- "Sustainability must be part of kitchen, marketing, HR, and room operations." - Spacebar & Uptown Hotel Managers
4. Staff and Guest Engagement	4.1 Teaching ethical practices and community responsibility	- "Teach social responsibility, labor rights, and customer engagement." - Albina Perez, Uptown Hotel

Key practices include:

- Experiential learning, immersion, and community engagement
- Using local sustainability cases (waste management, solar-powered sites)
- Cross-departmental sustainability teaching
- Emphasizing social responsibility and ethical leadership

These approaches align with Barth et al. (2014), who highlight the centrality of experiential learning in sustainability education.



**Table 11.** *Innovative Approaches in Sustainable Hospitality Education for Enhancing the BSHM Curriculum at NEMSU*

Themes	Sub-Themes	Responses
1. Sustainability Certifications and Performance Tools	1.1 Green certification training and tracking systems	- "Students should learn how to earn and maintain certifications like Green Globe." - <i>Sandscape Resort, Pacific View Hotel</i>
2. Smart Sustainability through Technology	2.1 Use of tech-driven tools (e.g., energy apps, waste tracking)	- "Use smart systems to monitor and optimize energy." - <i>Pacific View Hotel</i> - "Explore guest apps and water recycling innovations." - <i>Spacebar Resort</i>
3. Curriculum-wide Integration via Systems Thinking	3.1 Embedding sustainability values across all subjects	- "Sustainability should not be a side-topic. It must be infused into every course." - <i>Uptown Hotel Manager</i>
4. Global and Cultural Contextualization	4.1 Teaching sustainability with global-local balance	- "Students should learn how sustainability differs across regions and cultures." - <i>Jessett Manalo, Kaliguan Beach Resort</i>

Key innovations include:

- Integration of sustainability certifications (Green Key, EarthCheck)
- Use of technology-based tools (energy dashboards, waste-tracking apps)
- Curriculum-wide systems thinking
- Global-local contextualization

These innovations respond to modern hospitality standards and are strongly recommended by Kim & Lee (2022) and Nguyen et al. (2022).

### 3.5 Curriculum Redesign Recommendations

**Table 12.** *Recommendations for redesigning the BSHM Curriculum Aligned with Industry Standards and Global Sustainability Goals*

Themes	Sub Themes	Responses
1. Sustainability Certification and Green Business Management	1.1 Understanding and Implementing Certifications	- <i>Sandscape Resort Manager</i> : "Students should learn about certifications – how to earn them, maintain them, and why they matter in branding and operations." - <i>Joressa Alolod (Pacific View Hotel)</i> : "They must understand carbon footprints, ethical procurement, and how to measure sustainability using real tools." - <i>Supported by FEE (2023), EarthCheck (2023), and Green Globe</i> – stressing operational training in sustainability performance and certification.
2. Smart Sustainability – Integrating Technology and Innovation	2.1 Tech literacy for sustainability tools	- <i>Jessett Manalo (Kaliguan Beach Resort)</i> : "We use solar panels now – students need to know how it works, how it saves cost, and how it lowers impact."  - <i>Alice Caballes (Spacebar Resort)</i> : "Our waste tracking system lets us monitor how much plastic we're saving. These



**Table 12 (continued).** Recommendations for redesigning the BSHM Curriculum Aligned with Industry Standards and Global Sustainability Goals

Themes	Sub Themes	Responses
3. Community-Driven Sustainability and Local Immersion	3.1 Promoting local livelihoods and cultural heritage	<p>tools should be part of student learning.”</p> <p>- <i>Wong et al. (2021) and Kim &amp; Lee (2022)</i>: Promote smart hospitality systems, VR-based eco-learning, and real-time analytics in the curriculum.</p> <p>- <i>Rudani Guazon (Cantilan)</i>: “Our homestay program lets tourists experience real life here. Students should learn to value and promote what’s local.”</p> <p>- <i>Rey Oropa (Lianga)</i>: “The curriculum should teach how to build sustainable tourism that supports our farmers and fisherfolk.”</p> <p>- <i>Nguyen et al. (2022); Fang &amp; Lo (2022)</i>: Support SDG-aligned local sourcing, employment, and eco-tourism planning.</p>
4. Curriculum Leadership for Sustainability Advocacy	4.1 Developing value-based, ethical leadership	<p>- <i>Cantilan Tourism Officer</i>: “Teach our students that their integrity is non-negotiable when it comes to sustainability.”</p> <p>- <i>Michael Vasquez (Sandscape Resort)</i>: “Graduates must know how to lead green teams – not just follow orders.”</p> <p>- <i>Sidiropoulos (2014); Qenani et al. (2014)</i>: Emphasize transformational leadership and ethical sustainability education in curriculum design.</p>
5. Industry Immersion and Eco-Internships	5.1 Field-based learning for real-world impact	<p>- <i>Joressa Alolod (Pacific View Hotel)</i>: “Students should work with us on projects – waste audits, green events, solar energy – real things, not just case studies.”</p> <p>- <i>Tagbina Tourism Officer</i>: “When they helped us craft the tourism plan, they learned more than in any class.”</p> <p>- <i>Barth et al. (2014) and Tsai et al. (2022)</i>: Support for immersive, practice-oriented eco-internships and industry collaborations.</p>

Themes include:

1. Sustainability certification training
2. Smart sustainability and tech integration
3. Community immersion and local tourism collaboration
4. Leadership development in ethical and sustainable practices



#### 5. Eco-internships and project-based sustainability engagements

These recommendations collectively position NEMSU to adopt a sustainability-embedded BSHM curriculum, preparing graduates for global hospitality standards and SDG-aligned competencies.

### 4.0 Conclusion

This study examined the extent of sustainability integration within the Bachelor of Science in Hospitality Management (BSHM) curriculum of North Eastern Mindanao State University (NEMSU) and identified necessary enhancements to align the program with global hospitality standards and the Sustainable Development Goals (SDGs). The findings confirm that the curriculum demonstrates an emerging awareness of sustainable hospitality practices, with selected environmental concepts, such as energy efficiency, water conservation, green design, waste reduction, and responsible sourcing, embedded in key subjects, including *Trends and Issues in the Hospitality Industry*, and in practicum experiences. However, this integration remains fragmented, inconsistently implemented across campuses, and primarily focused on the environment. The social and economic dimensions of sustainability, including labor rights, ethical governance, community engagement, and sustainable business models, are underrepresented in instructional materials and coursework.

The analysis further revealed that sustainability concepts are often introduced as add-on topics rather than systematically embedded across core disciplines such as marketing, finance, operations, human resource management, and strategic management. The lack of explicit alignment with internationally recognized sustainability standards, including ISO 21401, GSTC criteria, and UNWTO frameworks, limits the curriculum's capacity to prepare graduates for the demands of a sustainability-driven global hospitality industry.

Stakeholders across faculty, students, industry practitioners, and tourism officers expressed strong consensus that sustainability is no longer an optional competency but a strategic requirement for employability, leadership, and long-term industry relevance. Despite this recognition, gaps persist in providing hands-on learning opportunities. Students noted inadequate exposure to real-world sustainability practices, while faculty members cited outdated materials, insufficient training, and limited access to technological tools. Weak industry-academe partnerships further constrain experiential learning and prevent the consistent application of sustainability principles in authentic settings.

The study concludes that meaningful curriculum enhancement requires an integrated, standards-based approach that embeds sustainability horizontally across hospitality functions and vertically across year levels, supported by faculty development, clear institutional direction, and strengthened industry and community partnerships. Experiential learning strategies, interdisciplinary models, and the incorporation of sustainability certifications and technological innovations are essential in transforming the curriculum from foundational awareness to advanced, practice-oriented sustainability competence.

By adopting the recommendations identified in this study, NEMSU's BSHM program can more effectively cultivate graduates who are not only technically proficient and globally competitive but also capable of championing sustainability, ethical leadership, and community-centered development within the hospitality and tourism sectors.

### 5.0 Contribution of the Author

The researcher completed all components of this research, including conceptualization, research design, data collection, curriculum audit, document analysis, thematic analysis, interpretation of findings, manuscript drafting, and final revisions.



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## 7.0 Conflict of Interest

The author declares no conflict of interest. The study was conducted independently, without any financial or institutional influence that could affect the integrity of the findings.

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